

Online Anonymity and the Kantian Publicity Principle: Can the Internet Solve the Paradox of Tyranny?

Hugo Chesshire, B.A. (1st Class Hons)

A thesis submitted in partial fulfillment of the requirements for the degree of
Master of Arts

Brock University
2014

Program Authorized to Offer Degree:
Political Science

© 2014

Abstract

Immanuel Kant's publicity maxim states that other-regarding actions are wrong if their maxim is not compatible with their being made public. This has the effect of forbidding dissent or rebellion against tyranny, since rebels cannot make their intentions and plans public. However, new internet technologies offer public speech from behind the "shield" of anonymity, allowing dissent to be public but preventing reprisals from tyrants. This thesis examines not only this possibility, but the value of internet-based discursive spaces for politics, their viability as a mode for political communication, and their implications for Classical and Enlightenment approaches to politics and intellectual virtue. Anonymous internet communications favour *logos*-based reasoning and discourse, which, in the liberal-democratic tradition, is preferable to *phronesis* and its attendant elitism and chauvinism. These technologies can open new vistas for liberal-democratic politics.

Acknowledgements

I am eternally grateful to my thesis supervisor, Professor Leah Bradshaw, not only for her tireless assistance and guidance on this project, but for first showing me the world of political philosophy, sparking my interest in the field, and for having been a tremendous mentor for years. I could not imagine having a better guide. I would also like to thank Professors John Bonnett and Ingrid Makus, my second and third readers, for their support and their considered and insightful commentary on the work, and Dr. Graham Potts, my external examiner, who did not let short notice prevent him from providing outstanding and rigorous feedback. The adroitness of Professor Charles Conteh and Michelle Benson in swiftly and efficiently charting this project's course through the labyrinth of university bureaucracy was invaluable. I am also thankful for the advice of Tim Fowler, who has recently trodden this path; for the help and opportunities that Professor Larry Savage provided; and for Dorothy Krynicki's unfailing enthusiasm and cheer whenever I felt less than confident in my abilities or my prospects. And lastly, but certainly not least, I should like to express my heartfelt gratitude to my father, whose support, wisdom and generosity were as invaluable as they was inspirational; my mother, who never passed up an opportunity to kindle her son's intellectual curiosity; and my wife, whose faith in my talents and abilities often exceeded my own.

Contents

Introduction.....	1
Part I: Classical Perspectives	8
Part II: Technological Communication.....	39
Part III: Critiques	87
Conclusion	129
Bibliography	138
Appendix I: Internet firm mergers and acquisitions	144

Introduction

To produce simple tests for the rightness of action, Immanuel Kant proposed universal maxims against which they could be measured, rather like a litmus test for rationality. His search for an objective and non-empirical concept of the good and of justice made the existence and discovery of such maxims imperative. He proposed such a maxim in *On the Disagreement between Morals and Politics in Relation to Perpetual Peace*: “All actions affecting the rights of other human beings are wrong if their maxim is not compatible with their being made public.” This is not only an ethical principle, but a juridical one; not only a part of a theory of virtue, but an actual principle which should be practically applied. If a plan depends on secrecy for success, whether because revealing it would endanger it, or because it would be likely to arouse vehement or even violent opposition, Kant reasoned that that must be because the plan is unjust, and as such poses a threat to all. Consistent with other philosophical applications of the Enlightenment project, this is an attempt at a first principle, an absolute law of the ethical universe, just as those of gravity are absolute laws of the physical universe. If we can make predictions and models of the physical universe based on the rules of gravity, so too can we judge actions based on these ethical rules.

If a people were ruled by a tyrant, a cruel and vicious despot who committed many grievous trespasses against the rights of his subjects, and who, in the words of Kant himself, “would not be receiving unjust treatment if he were dethroned,” it would be wrong if some of his oppressed subjects conspired to overthrow him and put an end to his

reign of terror.¹ If their gambit failed, they would deserve all of the torture and misery that the tyrant will no doubt heap upon them and would have no grounds to complain of unfair treatment, no matter how righteous their cause or how evil the tyranny.

Kant's grounds for this were the compatibility of maxims with publicity, public release and public knowledge. In his view, a constitution cannot contain an option for the people to rebel against an abusive ruler, for if that were the case, he would not be the ruler at all, and the state is not possible – it is internally contradictory for the highest authority to permit conditional usurpation of its authority, which could only mean that it was *not* the highest authority. Conspirators against tyrants cannot make their intentions public; their conspiracy is incompatible with public knowledge. Any tyrant worthy of the name would doubtless be so capricious and unjust that any person who publicly vowed to overthrow him would presumably be putting their head in a noose.²

If it were not for the publicity principle, then it might be quite permissible to overthrow tyrants and remain in accordance with Kantian principles. All regimes are not equal, and as with Plato and Aristotle, Kant divides regimes into several categories. When one has law and freedom without force, that is anarchy; law and force without freedom are despotism; force without freedom and law is barbarism; force with freedom and law is a republic.³ Despotism is a defective form of a republic; barbarism is a defective form of anarchy. Further, people must strive to leave the state of nature (including barbaric or anarchic regimes), since to remain in the state of nature is wrong in the highest degree – as is *upholding* barbarism.⁴ As Arthur Ripstein points out, these

¹ Immanuel Kant, *Perpetual Peace: A Philosophical Sketch*, Appendix II: 1.

² Kant, *Perpetual Peace*, Appendix II:1-2.

³ Immanuel Kant, "Anthropology from a Pragmatic Point of View," 7:330-31.

⁴ Kant, *Metaphysics of Morals*, 6:307.

distinctions are important, for those examples of regimes which might embarrass the Kantian opposition to revolution fall into those categories of regimes which Kant condemns.⁵ Revolution risks throwing a society back into a barbaric or anarchic state, which is anathema for Kant, but if the regime was already barbaric or anarchic, then it perhaps it deserves to be overthrown since it would probably make things no worse if successful (one might cite the example of the Russian Revolution of 1917, which – notwithstanding the Kerensky interlude – replaced one despotic regime with another), if only that revolution could withstand the publicity test.

I shall briefly visit an historical example of the problem of the publicity principle in rebelling against tyranny. Kant's work is steeped in Roman Stoicism, and Kant was a keen student of Latin and of Roman authors.⁶ Through the histories of Plutarch and Appian, it might be presumed that he was familiar with Sulla, Dictator of Rome in the first century BCE. Both historians agree that Sulla was a vindictive, cruel and greedy man who rose to power through scheming and conniving, but his disposition did not improve after he had attained the highest office.⁷ Possessed of a violent and vengeful nature, he would order torture and execution in response to the slightest of wrongs. He became famous for creatively filling the public coffers (which, thanks to his corruption, became synonymous with his own) by dispossessing his enemies after their execution and robbing their heirs of their inheritances, and finding ever more trivial reasons to put

⁵ Arthur Ripstein, "Kant and the Circumstances of Justice" in *Kant's Political Theory: Interpretations and Applications*, Ed. Elizabeth Ellis (University Park, PA: The Pennsylvania State University Press, 2012), 68.

⁶ Martha C. Nussbaum, "Kant and Cosmopolitanism" in *Perpetual Peace: Essays on Kant's Cosmopolitan Ideal*, ed. James Bohman & Matthias Lutz-Bachmann (Cambridge, MA & London, UK: MIT Press, 1997), 28.

⁷ Bizarrely, Sulla voluntarily resigned the dictatorship and returned Rome to constitutional rule; perhaps even more bizarrely, the Roman people actually elected him to public office again. Perhaps he may not have been as tyrannical as Plutarch and Appian made him out to be – sadly, alternative accounts are hard to find.

wealthy Romans to death. Sulla was known for his practice of proscription, the publication of lists containing the names of those he had vowed to execute, frequently accompanied by bounties promised to anyone who would murder them. Sulla's enemies lived in fear and in hiding while Sulla himself could – and did – publicly proclaim his intent to commit murder and injustice.⁸ Sulla, his actions, and his intentions were public. His enemies had to hide their actions, intentions, and even their persons.

This fact, Kant argued, is the reason why it would be wrong in the highest degree to conspire and rebel against a tyrant: while the conspirators cannot possibly make their pronouncements public, the tyrant can. As the wielder of supreme, irresistible power, the tyrant should be aware that public knowledge of his aims alone cannot frustrate them. The tyrant conforms to Kant's principle while the rebel does not.⁹ If this is not a defence of tyranny, then it is at least a principle by which tyranny can be perpetuated even if it is not lauded. One must hope that the tyrant has an attack of conscience, for efforts to reform his regime by force would be most immoral – as much, if not more so, than the tyrannical regime itself. The key issue is the essential nature of the state for law, right, and freedom. Although the state may not guarantee the presence of these things, as might be seen in “defective” states (a despotic state being a defective form of a republic, for instance), the absence of the state guarantees their absence.¹⁰ The republic combines force with freedom and law, and while all defective states forgo one or more of these attributes, a pre-political existence – the state of nature – forgoes them all, and to reiterate

⁸ Plutarch, *The Fall of the Roman Republic*, trans. Rex Warner, Ed. Robin Seager (London, UK: Penguin Classics, 1972), 31-33; Appian, *The Civil Wars*, trans. John Carter (London, UK: Penguin Classics, 1996), 95-98, 101.

⁹ Kant, *Perpetual Peace*, Appendix II:2.

¹⁰ Kant, *Anthropology from a Pragmatic Point of View*, 7:330-31.

a point made above, to remain in the state of nature is wrong in the highest degree, to say nothing of actively trying to return to it.¹¹

However, I struggle to find any examples of revolutions which resulted in the *dissolution* of the state and a return to a pre-political existence. Some manage to remove a despotic or barbaric regime and replace it with a republic (the American revolution, arguably; but better yet, the series of largely bloodless revolutions which pushed aside the Communist states behind the Iron Curtain in 1989-1991 and replaced them with democratic regimes), others strive to replace despotism or barbarism with a republic but ultimately fail, succeeding in changing the governors but not the mode of government (as with the 1917 Russian revolution, or the French revolution, which quickly decayed into the Reign of Terror and paved the way for the replacement of a king with an emperor). The risk of revolution against tyranny might almost seem worth taking, in Kantian terms, for the worst-case scenario seems to yield no improvement in the character of a regime, while a well-planned and principled revolution may actually improve it. Unfortunately, such revolutions run afoul of the publicity principle above, regardless of their potential utility. To risk revolution on the grounds that to fail is no loss but to win may be of benefit is ultimately a consequentialist argument which Kant must reject in favour of axiomatic principle.

The problem with this “defence” of tyranny (and although it is not intended as a defence, I use this word since the argument can definitely be recruited for this purpose) is that Kant himself is a liberal, committed to a free society, to democracy, and all the other principles which are antithetical to dictatorship. One might expect such an argument from Hobbes or Plato, who seemed to believe that human society needed strong leadership

¹¹ Kant, *Metaphysics of Morals*, 6:307.

above all else and that the iron fist was a necessary aspect of the state that ensured social cohesion and civil order. If rebellion against tyranny is forbidden by the publicity principle, then the transition from tyranny to liberalism in accordance with Kantian principles does not seem possible. Kant is no friend of tyrants, and even in his explanation of this principle, he remarked on how richly tyrants deserve to be overthrown and brought to justice by the people they oppress. There is an almost palpable lament in his tone; he regrets the fact that a tyrant can be justified and a rebellion delegitimized by his maxim, but there it is, he seems to say – would that a tyrant could be overthrown consistently with my principles! If we offered Kant a way out of this dilemma, would he not take it?

The internet brings the remarkable combination of publicity and anonymity, with new technologies that can deliver a message to a global public without ever revealing the identity of the author. It provides the opportunity to conspire against the tyrant while remaining in full compliance with Kant's maxim on publicity: the rebels can publicly shout their dissidence from the virtual rooftops and invite all and sundry to join them, and the tyrant, unable to break their encryption hashes, must resort to infiltration, violating Kant's maxim in the process, and paving the way to a usurpation of his power fully consistent with that maxim.

The proposition is that the internet may be able to combine public disclosure and wide broadcasting with the preservation of the anonymity of the author. It may be that this has been possible to some degree before; it may also be possible that the internet does not allow *complete* publicity and/or that it does not completely and unbreakably preserve anonymity. However, even if these caveats are true, the internet presents such a

huge leap in either category that we could liken it to the transition from the horse to the railroad, or from the written letter to the telegraph – while not entirely new, the changes offered are so vast that they are transformative not only upon the technology itself but upon society as a whole. This is the principal question I wish to examine: to what extent can the internet offer publicity with anonymity, and what does this mean for the Kantian publicity principle?

Internet communication is not the same as personal communication, however, and the Aristotelian revivalists clearly feel that something important has been lost in humankind's relationship to technology. I have therefore spent a substantial part of this research focusing on Greek perspectives on communication, technology, and the public, and particularly on those of Aristotle. I have done this for two reasons. Firstly, the Greek perspective presents an alternative way of looking at communication which is more emotional, more "human," than the Enlightenment perspective of Kant and his intellectual fellow-travellers, but at the same time is more elitist, more secretive, and perhaps more open to disruption and deception, deliberately or not. I examine whether the internet is a better "fit" for Classical or Enlightenment visions of "ideal" communication, for if it is a poor mode for political discourse, then it can scarcely form a replacement for other modes even if it does have an advantage in anonymity. Secondly, critiques of the technological account are often, if not largely, drawn from the Greek account, and these criticisms must be investigated. In this work, I am comparing not just perspectives on communication, but perspectives on the definition and scope of the public, and on political discourse. Even if it is established that the internet's offering of anonymity with publicity resolves an awkward paradox in Kantian thought, that is not

particularly helpful if Kantian and Enlightenment perspectives on political discourse are incorrect. For these reasons, I have spent considerable time on Classical perspectives in what is largely a research question focused on an Enlightenment maxim.

The Enlightenment tradition views the loss or attenuation of *pathos* and *ethos* as positive and, in this tradition, the anonymity of the internet represents another measure against their creep into rhetoric and public discourse, and a way to better skim the cream of *logos* from arguments. Before examining the question of anonymity, we should first establish whether internet communication can possibly be either a substitute or a meaningful conduit for public discourse – for if it cannot, then the strength of its anonymizing technology is neither here nor there as far as such discourse is concerned. The rejection of *pathos* and *ethos*, and the attendant emphasis on *logos*, goes hand-in-hand with the turn to *techne* – science – as the main or even the sole intellectual virtue, and this transition deserves to be examined. The first task in this work is to examine Classical thought on this matter before turning to the Kantian rejoinder, and to internet technology itself, as an answer to its conundrum.

Part I: Classical Perspectives

Without a doubt, the basis for Western political thought and philosophy is Greek, and this is no less true for our philosophies of politics and technology. Perhaps Alfred North Whitehead oversimplified when he remarked that “the safest generalization of the European philosophical tradition is that it consists of a series of footnotes to Plato,” but the point is well-made – any inquiry into Western political thought is at best incomplete

without first turning to Hellenic philosophy.¹² If that were not sufficient reason, there has been something of a revival of Aristotelian principles in the twentieth century in response to the problems of technology. Even in some modern political thought that points out the problems of technology, much seems to be drawn from or owed to the ancients. For example, both Heidegger or Marx – at the risk of greatly oversimplifying their arguments – object to the technological worldview taking over all aspects of human life and society, arguing that technology plays a significant role in detracting from an authentic human experience, and that, while technology is not necessarily intrinsically bad, we need to exercise better judgement in our use of it if we are to preserve human dignity and the authenticity of human experience. This line of thinking (although it by no means encompasses their entire arguments) particularly seems to have been influenced by Greek thought, and therefore, a discussion of the interactions between technology and politics ought to start with Classical accounts of both.

The Classical accounts I shall examine here are mostly drawn from Aristotle, who is more unequivocal than Plato in his meditations; Plato's work is subject to almost endless reinterpretation as one is never quite sure, in the dialogue motif, if he is advocating for (or warning against) any particular concept. The City in Speech, like More's *Utopia* or the opening chapters of Huxley's *Brave New World*, may seem like a compelling argument for a certain political arrangement but also may be a caution against it. Plato's definitions of *techne* and *episteme* are more overlapping and confusing than Aristotle's, and his apparent advocacy of the ruler as technician, governing by mastery of kingly *techne*, may not be intended to be advocacy at all. These issues in Plato will be addressed below, but it is Aristotle, I argue, who offers the most comprehensive Classical

¹² Alfred North Whitehead, *Process and Reality: An Essay in Cosmology* (New York: Free Press, 1979), 39.

Western critique of technology. As I have noted above, I shall start here in order to establish both the philosophical groundwork which Kant and the Enlightenment tradition later sought to overturn, and the bedrock of objections to the Enlightenment vision of political communication.

The ancient Greeks have a different perspective on technology from either the optimism of the Enlightenment and the conviction of liberal thinkers that technology and technological thinking could change the world and human affairs for the better, or the anti-technological perspectives convinced that technology dehumanizes us, robs us of authenticity, or threatens our very existence as a species. However, the Greeks also did not understand technology to mean the same thing as it does in either of these views, and their definition of technology must be clarified first.

The Greeks separated the concepts of *techne* and *episteme*. *Techne* is a craft, an applied form of knowledge aimed at working a human will upon an external subject – nature, or our fellow humans, for instance. *Techne* is practiced by the craftsman or the artisan in building houses, boats, or shoes. *Episteme* is what might be called “pure” knowledge, pursued without any obvious practical application in mind, or any practical application at all. Astronomy or physics would be examples, since while they might eventually produce a practical application, there is frequently no such obvious application at the time that they are studied (for example, the discovery of exoplanets, which “merely” enriches human knowledge since those planets are too far away for humanity to interact with in all but the most far-fetched fantasies of science fiction). When Aristotle offers his five virtues of thought – *techne*, *episteme*, *phronesis*, *sophia*, and *nous* – *techne*

is generally translated as *art* or *craft*, whereas *episteme* is translated as *knowledge* or, more specifically, *scientific knowledge* or just *science*.¹³

To Aristotle, *techne* and *episteme* are clearly separate concepts. *Episteme* deals with first principles, which must be known but cannot be deduced from observation, and whose subjects are eternal.¹⁴ “We suppose ourselves to possess unqualified scientific knowledge of a thing,” he remarks, “when we think that we know the cause on which the fact depends, as the cause of that fact and of no other, and, further, that the fact could not be other than it is.”¹⁵ The scientific, then, is the search for first principles and root causes that depend upon no others. For example, the rocket scientist knows that to put a payload of mass x into an orbit of altitude y will require a Δv (i.e. a change in velocity, or acceleration) of z , and must design a rocket that is capable of Δv z in order to achieve the task of lofting payload x into orbit y . However, these rules – which might be looked up in a table without understanding of the underlying concepts – are not first principles, but depend upon something else. In this case, “something else” is the general theory of relativity, and if the theory were different, the rules governing z for mass x and altitude y would change too. The general theory of relativity is a first principle which does not depend upon anything else but is simply a rule of the universe, without further explanation or dependency. There is no other cause, and the general theory of relativity is universal and eternal; it will never change, and no matter where in the universe one is, it will always be the same. While the design of rockets is *techne*, a craft aimed at producing

¹³ Aristotle, *Nicomachean Ethics*, 1139b15.

¹⁴ Ibid., 1139b15-35.

¹⁵ Aristotle, *Posterior Analytics*, 71b9-11, 94a20.

something in the world and which depends upon first principles but contains none, the abstract physics behind it is *episteme*.¹⁶

Techne thus differs from *episteme* in its goals. Whereas the latter is the study of knowledge for its own sake, as knowledge of the forms tends to be pursued for its own sake, *techne* has a product and seeks some sort of increase in welfare. Plato offers the example of the physician, the physical trainer and the money-maker, whose arts aim at producing something that will increase welfare – the health or wealth of the client.¹⁷ For him, and for Aristotle, *techne* is a productive art which works upon the raw materials of nature or mankind, as opposed to *episteme*, which seeks knowledge for its own sake.

In Aristotle's account, while *techne* is the means by which we work with nature and bring the things required for the good life into being, *phronesis* is the virtue by which *techne* is guided to do so. *Phronesis*, the highest of Aristotle's intellectual virtues, is defined as "a reasoned and true state of capacity to act with regard to human goods."¹⁸ This virtue is often translated as *prudence* or *practical wisdom*, but *phronesis* is the ability to make good judgements, to act in one's own true best interests (i.e. to seek happiness in the truest sense – that which is sought for its own sake – rather than mere pleasures), and the interests of others.

To clarify the difference between *episteme* and *techne*, especially with respect to the differing ways in which these kinds of knowledge are assessed by popular opinion, Aristotle offers the example of the philosopher Thales, who was criticized by others for spending too much time studying the heavens and not enough making money. Aristotle

¹⁶ In all fairness, any rocket scientist worth their salt would also have a strong grasp of the *episteme* of orbital physics.

¹⁷ Plato, *Gorgias*, 464c.

¹⁸ Aristotle, *Nicomachean Ethics*, 1140b20.

contends that a philosopher has the option of turning his considerable skills to the making of profit, but generally chooses not to. Thales learned from his study of astronomy that there would be a bumper olive crop one year, but kept this knowledge to himself. He secured the hire of all the olive presses and made a fortune renting them out again when the olive harvest was taken in.¹⁹

However, this is probably not a good example of *techne* or *episteme* wisely governed by *phronesis*, which is also probably why Aristotle chooses it to illustrate the example of philosophical knowledge being easily turned to other pursuits, rather than as an example of good *phronesis*. We could consider the examples of Jonas Salk, who developed the first effective polio vaccine, or Tim Berners-Lee, who developed the World Wide Web. Both men could, like Thales, probably have made a fortune from their inventions, but both chose to give the technology away, unpatented and royalty-free. This might be the outcome expected of the *phronimos*, who should not be preoccupied with wealth but instead be magnanimous and civic-minded, and it is the essence of *phronesis* in politics to act in the best interests of the citizenry as a whole. The reverse might be said of the scientists working on the Manhattan Project, who possessed the *techne* to construct nuclear weapons but lacked the ethical judgement to realize that the development of such weapons posed an enormous danger both to themselves and their fellow humans.²⁰

¹⁹ Aristotle, *The Politics*, 1259a3.

²⁰ While some contend that nuclear weapons may have guaranteed that a devastating world war could not reoccur due to the awful destructiveness of it, nuclear wars came within a hair's breadth of breaking out in 1962 and 1983, and their aversion was more due to unusual individual perspicacity and, frankly, dumb luck than to anything else. In any case, creating weapons of awesome destructive power in the hopes of ushering in an age of peace (without either the benefit of hindsight or prophetic powers) seems foolhardy and grossly irresponsible – hardly attributes of the *phronimos*.

Plato's view differs in some respects, but nevertheless, *episteme* in the Platonic account is the ability to know reality – to know what *is*.²¹ This gels with the Aristotelian concept of *episteme* as the knowledge of first principles and the “rules” of the universe which do not depend upon deeper rules. Such knowledge is arguably knowledge of reality itself; rather than apprehending various effects and means, we apprehend the rules of the very universe – the rules of reality. Let us consider the Platonic forms. The forms are reality, as it is explained in the famous Allegory of the Cave, in which Plato likens humankind to a group of people sitting in a cave, chained so they may only see the cave wall on which shadows cast by firelight are thrown. Since this is the only “reality” that they know, they believe the shadows to be the total of existence and reality, not suspecting that there are real objects casting those shadows which they have yet to see and whose existence they have not guessed at.²² For an example of forms, we might think of geometry. A square is a shape with four equal sides and four right-angles. Anything lacking these attributes is not a square, but there is no greater degree of “square-ness” – the geometrical concept of the square is the perfect square, eternal and unchanging; squares vary in size but the larger square is not more of a square than the former. We also make the distinction between perfect, abstract squares, and actually existing squares; due to imperfections – however minute – in our ability to measure distance and angle, an actually existing square only approaches the form of a square to some degree. Perfect squares only exist in the abstract. Knowledge of the square is not (and, due to the imperfection of actually existing squares, cannot be) gained through observation, as

²¹ Plato, *The Republic*, 477b.

²² *Ibid.*, 514a-520a.

Aristotle would agree, but from abstract geometry and mathematics which allow us to know the “form” of the square.

Techne is also technique aimed at a practical end for Plato, although he concedes that there may be some confusion between the two concepts. In the *Charmides*, for example, he observes that the *techne* of medicine is actually the *episteme* of health.²³ *Techne* could be simply understood as applied *episteme*, and this account of technology would not look out of place in the modern world. Anatomy or epidemiology might be examples of medical *episteme*, for example, which purely seek to learn how the body functions or how disease appears and spreads in a population. From these are derived the *techne* of surgery, which depends upon anatomical knowledge, or of public health screening, which depends upon knowledge of the spread of disease. There is a certain degree of dependency of *techne* upon *episteme*, and this can sometimes make the distinction between the two confusing. For instance, if the epidemiologist studies the spread of disease so as to produce better vaccinations, is this *episteme*, as she studies the disease for knowledge of it, or *techne*, as she has in mind the practical goal of vaccine? Plato’s evaluation of this tendency for conflation is perhaps a precursor of the blurring of *techne* and *episteme* after the scientific revolution, and, perhaps not coincidentally, Plato also makes a case for the *technites* as the optimal ruler, rather than the *phronimos*.²⁴

The Aristotelian relationship between *phronesis* and *techne* is not license to do whatever science and technology make possible, but is it not a rejection of science and technology either. Such a rejection would make the achievement of happiness and the good life difficult, if not impossible, for *techne* is what brings the material things required

²³ Plato, *Charmides*, 165c.

²⁴ Plato, *The Statesman*, as cited in David Tabachnick, *The Great Reversal: How We Let Technology Take Control of the Planet* (Toronto: University of Toronto Press, 2013), 45-47.

for the good life into being. *Techne* makes the city possible – its buildings, streets, aqueducts, and so forth – and without the city, human flourishing is not possible. *Techne* also creates the opportunity for both wealth and leisure, allowing both magnanimity and a life of contemplation, both key to the highest levels of virtue. Unlike Rousseau, for instance, Aristotle holds that humans outside a civic, political environment with only their hands for tools can neither flourish nor be happy. The pre-political and pre-technical state is not an idyll from which community and technology can only detract, but a cage for human potential, to be escaped as soon as possible.

Aristotle differs from the ascetics of both Western and Eastern traditions in his assertion that material things are necessary if not sufficient conditions for human happiness. This is plainly stated in the *Ethics*, when he bluntly posits that happiness “manifestly requires” external goods in addition to virtue, and that “it is impossible or not easy for someone without equipment to do what is noble.”²⁵ Interestingly, Aristotle remarks that happiness requires not just material goods, but also good birth, friendship, children, and even physical beauty (or, at least, the absence of ugliness), and therefore, that “those who are bereft of some of these... disfigure their blessedness.”²⁶

This is in marked contrast to Augustine’s admiration for the ascetic lifestyle of the hermit or the monk, to the conviction that earthly pleasures must be rejected for the ascetic virtue of the nurturing of the soul, and to his wholesale rejection of good birth, friendship, children, material goods and physical beauty as conditions for the only true happiness, to wit, closeness to the divine.²⁷ The Augustinian position sets the tone for medieval Christian philosophy, and is possibly the first negative position on technology

²⁵ Aristotle, *Nicomachean Ethics*, 1099a30-1099b9.

²⁶ Ibid.

²⁷ Augustine, letter 140.

in the Western tradition, as it holds that *techne* and the benefits it provides are only distractions from human flourishing. The technology that makes the City of Man more magnificent also makes the City of God harder to attain.

The City of Man is all-important if one is to scale the slope of Aristotelian flourishing, however. The Aristotelian tradition favours technologies which make food plentiful and water clean, which save labour, and which make life easier in general. There is probably not much *eudaimonia* to be gained from doing the laundry or washing the dishes. Poor health from an inadequate variety or quantity of food is almost certainly a barrier to happiness, and the malformed or disfigured may come closer to the good life through cosmetics or prosthetics. Instead of Augustinian rejection, Aristotle argues for the management of technology through the intellectual virtue of *phronesis*. Labour-saving devices may free time that can be spent in contemplation, but to spend one's time in indolence watching reality television is a waste; plentiful food should not be an excuse for gluttony and immoderation, and plastic surgery in search of elusive social standards of beauty are not likely to lead to any kind of inner harmony of the soul. *Techne* must be ruled by *phronesis*; "to each man there comes just so much happiness as he has of virtue and of practical wisdom, and performs actions dependent thereon."²⁸

This concept of technology ruled by virtue has enjoyed something of a comparatively recent revival, courtesy of thinkers such as Arendt, Gadamer and MacIntyre.²⁹ The revivalists restate Aristotle's objection to the decline of the Greek states whose politicians had given up governance and constitutions aimed at the good life in favour of a more "vulgar way of thinking" which pursues virtues offering greater utility

²⁸ Aristotle, *The Politics*, 1323b21.

²⁹ Tabachnick, *The Great Reversal*, 44.

and profit for themselves and for the state, at the expense of virtues which pursue the genuine well-being and flourishing of the citizenry. If that were not enough, these lawgivers have also managed to acquire a reputation for statesmanship, and their constitutions a reputation for being the best-crafted.³⁰ Comparisons to modern states which have all but handed over power to business interests, gutting philosophical and artistic programs and education in favour of science and technology as they go, and whose foreign policies focus on power rather than ethics, are probably unnecessary.

This decline is held to be a consequence of abandoning the wise governance of technology with *phronesis* in favour of wholly technical aims. Aristotle specifically notes profit as one such aim, and this will seem familiar to anyone in the modern age who has wondered about the wisdom of the modern economic obsession with ever-greater productivity, efficiency, and profitability, while the standard of living stagnates and working hours increase, while material resources are exhausted and the climate warms ominously, and, most problematically in the Aristotelian paradigm, why happiness can seem so elusive to so many even in the midst of unprecedented material plenty and technological marvels which even the highly technical Victorians, much less the ancients, would have scarcely dreamed possible.

If the Classical ideas of hierarchy in the soul and of the virtues are accepted as correct, then the problem is that the virtues of *techne* and *episteme* have been elevated above *phronesis*, when they should remain subservient to and governed by it. In the Classical account, both the practical application of technology and the pursuit of “pure” science have a role to play in human flourishing, and a valuable one – not for nothing are they both labelled “virtues.” For the Aristotelian revivalists, this is where the rift between

³⁰ Aristotle, *The Politics*, 1133b5.

techne and “modern” technology occurs, once *phronesis* is laid aside in the Enlightenment and the scientific revolution. The Aristotelian concepts of the virtues are demolished. In discourse, *logos* gains complete domination over *ethos* and *pathos*, which are subsequently held to be fallacious and wrongheaded. Arguments made from emotions or passions are now held to be invalid against arguments made from logic and based on substantive, quantifiable evidence. *Techne* and scientific *episteme* are elevated, while *phronesis* and *nous* are marginalized or rejected.

Nous is a concept like “common sense” or “intuition,” both of which are poorly regarded in the post-Enlightenment era as tools for apprehending the world, for governing oneself, or for governing others. Modern science has proven that sense perception and intuition are generally fallible means of comprehending the physical universe, at least, having given rise to concepts like geocentrism, animism, or abiogenesis.³¹ Discrediting *nous* in the physical sciences has arguably tarnished its reputation in other disciplines, such as sociology or politics, where quantitative, scientific methods seem to have become the most respected tools for understanding and studying their problems.

The Enlightenment and the scientific revolution did not change anything fundamental about technology itself, the definition of which remains as it always has been: the tools and techniques to change our environment, to solve problems, or to achieve goals. “Modern” technology is not a different beast to ancient *techne*, but our approach towards it, and towards the other facets of human ingenuity, intellect, and

³¹ Not abiogenesis or biopoiesis in the modern sense, i.e. the study of how life *originally* came from non-living matter billions of years ago, but in the Classical sense, i.e. that plants and animals currently living could have come from non-living matter, such as Aristotle’s deduction that mice were not born to other mice, but were generated in damp hay – see Aristotle, *The History of Animals*, Bk. V ch. 1.

experience, have changed quite dramatically. Hedeigger, Arendt, and Marx do not contend that technology is inherently bad, but merely that we have given it an inappropriate place and priority, and forgotten our other virtues (although it is only in this great over-simplification that these three thinkers could be said to be in complete agreement on this matter). “Modern” technology begins with the enlightenment and the scientific revolution, and it is for this reason that the Aristotelian revivalists, for instance, do not advocate an abandonment and rejection of the technological as per Theodore Kaczynski, for example, but instead argue that we ought to restore *phronesis*.

The break between *techne* and modern technology, or whatever alternative terms one might wish to use, comes about with the scientific revolution and a sea change in the way we approach technological problems. Pre-modern technology was largely – perhaps even exclusively – based on observation or trial-and-error. We observed what worked and what did not, drew our conclusions therein, and created our technological solutions accordingly. We had ideas for improvements or noticed that some accidents of execution worked better, and incorporated them into our technology. Modern technology employs a methodological approach found in modern science: the problem is first identified, and then hypotheses are developed, based upon our understanding of science, that attempt to solve the problem. We then move on to experimentation and prototyping, with refinements based on careful and exhaustive observation. The superiority of modern technology, in the wealth of its solutions and the speed with which it develops them, is obvious. One need only compare the progress of technology in the last three hundred years to that of the entirety human history before it in order to reach this conclusion.

Perhaps, however, there is more to technology than a simple acceleration of the pace of change, and another way to judge its success at solving human problems than just the speed with which it produces new artifacts and techniques. Francis Fukuyama, in *Our Posthuman Future*, offers a fairly representative example of this Aristotelian critique of post-enlightenment technology. Like Heidegger, Fukuyama feels that technology threatens human happiness and human existence, and like Aristotle, he contends that technology has the potential to be mastered by mankind and to serve as an aid to human flourishing. Religion has become the primary bastion of resistance to technology, but he considers this neither useful nor wise; rather, it is better that we return to Aristotelian ideals of justice and the good, anchored not in religion but in ethics and philosophy, to guide our use of technology.³²

In the same volume and as part of the same project, Fukuyama also rejects the Kantian project of positivistic, universal rights and *a priori* ethical principle. The scorn poured on Aristotle's naturalistic fallacies by Hume and his successors is ill-deserved, he argues; there are no universal positivistic rights, so rights ought to be derived from nature. Even the positivistic rights theorists, such as Kant, end up "sneaking" arguments derived from human nature into their theories – in Kant's case, assumptions that humans are naturally rational, that they benefit from and use their rationality, and are capable of developing their rationality over time.³³

At this point, we should pause to consider the nature of the natural, as it were. The "natural" can mean two things: the innate, or the teleological. For example, when Aristotle talks about politics as natural to humanity, he means that it in the second sense:

³² Francis Fukuyama, *Our Posthuman Future: Consequences of the Biotechnology Revolution* (New York: Farrar, Straus and Giroux, 2002), 10-12.

³³ *Ibid.*, 112-115.

we are not *innately* political, but we are predestined to form political societies. If humans were political in the first sense, it would not be necessary to document or describe the rise of the *polis*, for it would be naturally occurring in all human societies. However, for example, when Hobbes opines that humans are naturally self-interested and inclined to deception and violence when they further their own interests, he means it in the *first* sense: all humans have this predisposition, but it is not the destiny of humanity to live in the violent anarchy of nature, and not only is there something that can be done to resolve this, but there is something that ought to and must be done. If we take a teleological understanding of nature, then nature ought to show us the good or at least point us towards it. Nature as innateness, however, tells us nothing of what ought to be, only of what is (Hobbes found nothing good or admirable in his account of humanity's innate and natural characteristics).

Fukuyama's idea is quintessentially Aristotelian in its account of nature, for it holds that a conception of the good can be obtained by observation and derivative theories. Nature here is meant in the second, teleological sense: from nature, we can deduce the good. It is fundamentally opposed to the Kantian paradigm, which will be examined in detail later, but which essentially rejects observation and empirical observation as means to truth in favour of *a priori* principles which can stand on logically firm ground alone, without the need for observation to prove their veracity. Where Kant considers nature, or makes assessments – however veiled – about the natural characteristics of humanity, it is in the first sense. Kant's maxims must be freestanding and cannot derive from observation. Nature may support his arguments, but can never provide their foundation.

Aristotle's devotion to observation has led to ferocious criticism; a great many of his scientific theories have since been wholly discredited, to the point of being considered childish and risible in the modern era, while his political works have been recruited in support of slavery or the continued subjugation of women. Although no critical study of modern, Western society could conclude that the problems of racial and gender inequality have been entirely solved or done away with (although it is fair to say that these problems have been greatly ameliorated since the abolition of chattel slavery and the granting of legally equal status to women), in the Western tradition the arguments for "natural hierarchy" have been not only discredited but perhaps permanently stained with the stench of the most reprehensible and odious of theories and regimes,³⁴ and both racial and gender discrimination have become almost universally viewed as reprehensible – at least *de jure*, if not always *de facto*.

In adopting Aristotelian theories of what is "natural" and what can be observed to be naturally good and just, Fukuyama comes dangerously close to suggesting that some degree of misery and suffering is essential to the human experience.³⁵ He argues that human dignity must be derived from human nature, and this argument – although Fukuyama does not go so far – can be harnessed to support inequality, slavery, the denial of treatment and medicine to people deemed unwanted (whether due to undesirable characteristics or simple overpopulation), and so forth.³⁶ This seems to be an inherent weakness in any argument that advocates for a certain restriction of technology and technological solutions. For example, arguments against biotechnology often seem to

³⁴ It took the revelation of Nazi crimes to wholly discredit eugenics, but small comfort may be found in the fact that its association with Nazism is likely to prevent any noteworthy resurgence in its popularity, so long as those crimes remain widely known and reviled.

³⁵ Fukuyama, *Our Posthuman Future*, 6.

³⁶ Ibid. 153-158.

take it for granted that biotechnology's inevitable outcome is an artificially-created inequality, the creation of a literal *übermensch*, or techniques sought and practiced purely for vanity and conceit. However, biotechnology also encompasses an enormous variety of technologies aimed at reducing human suffering and extending both the quality and the duration of human life, many of which are inseparable from other, less noble applications.

We may say that Fukuyama's "defence" of human misery and suffering fits well with the Aristotelian account, which justifies much that seems unjust or miserable on the grounds that it appears to be natural.³⁷ If Aristotle accepts that it is "natural" for certain people to be innately irrational and incapable of self-governance, making them natural slaves, destined for subjugation under their betters (for their own good, if nothing else), then it is not too far a stretch to accept that it is "natural" for certain people to suffer disease and deprivation – and why not, if the misery of slavery is natural? Here we bring together the meaning of nature in both senses: since the naturally slavish are *innately* incapable of self-governance, it therefore follows that they *ought* to be governed; if those who suffer genetic, incurable diseases and defects have been made so by nature, is it not right that they ought to be left to the fate to which nature has condemned them?

This is the more monstrous side of Classical thought, which I introduce here as the beginning of my rationale for rejecting the models and ideas of the ancients in favour of those born from the Enlightenment. Contrasted against Classical appeals to virtue and character are ideas for governance and human interaction which are highly elitist,

³⁷ Although it is unfair to label Fukuyama's account as an explicit defence of human misery and suffering, which he surely did not intend, the fact remains that his arguments are easily recruited for such a defence by others – much as Aristotle's arguments were easily recruited to defend slavery and the subjugation of women.

denying rights, status, or self-determination to broad swathes of humanity, and inviting secrecy and coercion against the weak in character, mind, or soul, or even in the body. Such suggestions are profoundly offensive to the Enlightenment project, with its concepts of innate, irreducible and inalienable human rights granted to all, and its desire to reject the deprivations of our natural condition in search of teleological idealism in politics, society, and health which is not derived from nature *qua* innateness, but from panegyrics to the sort of people and society we wish we could be if we were freed from all the innate weaknesses and bindings which held us back.

On this note, it should be stressed that the Aristotelian conception of nature as derived from observation acknowledged such human traits as speech and politics to be universal, but not autonomy or rationality. Aristotle observes that all humans possess speech, and that they all have a political organization of some kind, but some people are naturally slavish, and some are seemingly lacking in or wholly devoid of reason; therefore, politics must not be an *innate*, natural human quality, since it is not universal, but a *teleological* one. Aristotelian virtue also encourages this worldview, since the worth of a human is measured in their virtue – in how they act and how they think, which are variable in quality and quantity – rather than in their innate humanness. It does not take a great deal of imagination to extrapolate from that position that there is little natural or innate value in any individual human, only the value which they create for themselves; since some are hindered from attaining virtue by their ugliness, or poor birth, or poverty, it is therefore not unimaginable that there are some humans who are wholly without virtue – humans who are “naturally” worthless, ugly and impoverished in body, mind, and soul.

Aristotle's teleological account of nature also includes institutions that might seem to be wholly artificial, such as the state, or slavery, since they "naturally" arise from human community, although it cannot be supposed that they are innate. They are not naturally occurring, but they will naturally come about. In this, Aristotle conflicts with Enlightenment thinkers such as Rousseau, for whom such institutions are completely unnatural and are not final conditions derived from the innate qualities of humankind, but synthetic artifices which "interfere" with the natural order.

The state and politics are both things which naturally exist inasmuch as they are natural developments for humankind, as predestined as death follows birth – no human born will fail to die in time, and no community of humans will fail to become a *polis* in time (barring external intervention, of course; the fledgling community may be wiped out by invaders or by natural disasters, and eternal life probably requires divine intervention, although many religious texts allege that this is not only possible but has already occurred for some). This is laid out unequivocally in the *Politics*, and the stateless are dismissed as being either something other than human, whether by deficiency or by excess.³⁸

Aristotle describes the process by which human societies and settlements progress from the household, to the village, and finally to the *polis* by a process of "natural" alliance and social bonding, but since the end-form of human society is the *polis*, it is therefore a natural state of existence for humankind. Furthermore, Aristotle continues, since animals provide for the sustenance of their offspring by the substance of the egg, or the milk, it is also reasonable to infer that animals are provided for at the later stages of their development – plants exist for animals, and animals exist for man, whether tame or wild. Since nature provides nothing that is purposeless, Aristotle therefore concludes that

³⁸ Aristotle, *The Politics*, 1253a1.

the fruits of nature have all been made for man.³⁹ The entities of the natural world, be they animal, mineral or vegetable, exist for the purpose of human exploitation – it is natural, in the teleological sense, to produce finished goods from the raw materials of nature. Not just the social and political formations of the *polis* are natural, but also the physical and architectural formations. The final form of wood and stone is in the buildings and the walls of the *polis*.

At first glance, this bears a curious resemblance to the post-enlightenment account of nature and technology, in the Baconian conviction that nature is there to be tamed, harnessed and exploited in the service of mankind, as George Grant observed, or in the vision of nature as standing-reserve to be exploited by industry and commerce, as Heidegger lamented.⁴⁰ However, Aristotle does not conclude with this observation, but begins from it. Although he often takes the natural to be the correct or just ordering of things (again, one can refer to “natural” slavery), there are various possible permutations of this, not all of which are desirable. Although mastery over nature may be natural, it is possible to exercise one’s mastery over nature in a virtuous or a vicious manner, just as over one’s slaves or women.

Speech, politics, and the perception of good and evil are natural to humankind, for any human community seems to naturally develop into a *polis*, since humans all possess language and will deliberate over how to run their collective affairs, and yet, as noted above, virtue, value, and autonomy are not innate to human beings in this account.⁴¹ Nor

³⁹ Aristotle, *The Politics*, 1256b7-26.

⁴⁰ George Grant, “In Defense of North America,” in *Technology and Empire: Perspectives on North America* (Toronto: House of Anansi, 1969), 347-350.

Martin Heidegger, “The Question Concerning Technology,” in *Martin Heidegger: Basic Writings* (London: Harper Perennial, 1993), 322-324.

⁴¹ Aristotle, *The Politics*, 1253a7-17.

are all men naturally rational, and those that are not are naturally slavish, destined to be justly enslaved to men of reason. The use of the male noun is deliberate, for in the same breath Aristotle also notes that woman is naturally “inferior and subject” as man is “by nature superior and ruler.”⁴² Reason is the province of the ruler, whether in the household or the state, or even in the self.

Aristotle divides the soul into the appetites and the passions, which ought to be ruled by reason. Like Plato, Aristotle believes that some sort of hierarchy of the soul, with reason as the apex, is desirable and necessary for happiness and virtuous conduct. People who are tempted out of their rational choices by appetites or emotions are dubbed *akrates*, incontinent, for their poor self-control will deny them happiness. Similarly, the evil are those who never make rational, virtuous choices in the first place, and their happiness will also be continually frustrated. Reason is established as the means by which we can obtain happiness, and Aristotle seems convinced that a momentary failure to act rationally or virtuously is owed to a momentary lapse of reason; consistently poor choices and bad decisions are held to be indicative of chronic irrationality.

The innateness and the importance of politics to humankind is one of the very first points made in the *Politics*: man is a political animal.⁴³ One aspect of the unique nature of humankind is politics; the other, speech. For Aristotle, this is also a natural synergy. One could not exist without the other. Engagement in politics requires speech, for politics is an activity in which we must engage other humans in something other than violence; violence is pre-political.⁴⁴ Speech leads to deliberation, for if one can speak, one can

⁴² Aristotle, *The Politics*, 1254b14-31.

⁴³ Aristotle, *The Politics*, 1253a1.

⁴⁴ Hannah Arendt, *The Human Condition*, 2nd ed. (Chicago: University of Chicago Press, 1998), 26.

make a point and argue for it, and the ability to deliberate over power is a most political ability.

Speech and politics as two elements of a whole can produce concord, and according to Aristotle, “the real difference between man and other animals is that humans alone have perception of good and evil, just and unjust, etc. It is the sharing of a common view in *these* matters that makes a household and a state.”⁴⁵ The capacity for speech and the capacity for politics are intertwined, and concord leads to the formation of communal bodies and, ultimately, to the *polis*. The sharing of common views requires interaction by speech as, even discounting the possibility of persuasion, discourse is a requirement for the mere identification of people who share the same views of justice and goodness and with whom one can build a community.

The existence of speech, and not mere voice, distinguishes humans as deliberative beings. Many animals have “voices,” and this distinction is still valid today, although the terminology may have changed. Animals can and do build societies of their own without the capabilities of human language, but Aristotle does not call them *political*. This is an important distinction, and the social and the political ought not to be confused. The link between human speech and human politics points to the classification of politics as deliberative, since politics requires abstraction and discussion above and beyond the simple gatherings of simple, animal societies if it is to discover or create a communal consensus on the abstract and philosophical concepts that give rise to political community. Aristotle dismisses all simple animal societies based on strength and force, such as lion prides or gorilla troops, as apolitical. In order for any creatures to be political, they must deliberate, and as only humankind has speech, only humankind can

⁴⁵ Aristotle, *The Politics*, 1253a7-17; emphasis in original.

deliberate, and therefore, only humans are political, since only humankind may deliberate politically.

The essentiality of deliberation and speech to politics means that some deliberative space is essential for any political regime. Its precise nature or form may vary between states and regimes, but it must exist in order that citizens can deliberate and arrive at policy.⁴⁶ The better deliberative space would be more inclusive and democratic, in Aristotle's estimation, for the judgement of the many or the public is generally superior and better conclusions can be reached when more minds are added to the discourse. Aristotle counters the Socratic notion that matters in which expertise exists are best left to experts with the response that, taken as a whole, the judgement of the people tends to be more correct than that of experts, even in their fields of expertise, but this would require as inclusive a deliberative space as possible, so as to include as many minds as possible.⁴⁷ In fact, a democracy should open the deliberative space to everyone so that all can be a part of the deliberative process that produces policy, and the common people will seek this level of equality in any event.⁴⁸ However, given Aristotle's elitism on the subject of the naturally slavish, women, and non-Greeks, and his conviction that only the social class of wealth and leisure can lead the contemplative life he holds to be ideal, it is not unreasonable to conclude that "the people" is not meant here in the same, radically inclusive way that the Marxists might think of the term, but is probably restricted to citizens, at least. This is not at odds with Aristotle's opinions on deliberation and democracy, which are also elitist and restrictive in nature.

⁴⁶ Ibid., 1298a11-33.

⁴⁷ Ibid., 1281a39-1282a14.

⁴⁸ Ibid., 1298a8.

This, then, is the extent of the deliberative space in Aristotelian democracy. Like Arendt and Habermas, Aristotle believes that all citizens of democratic communities are entitled to participate in the political, deliberative process (although the conditions of citizenship greatly restrict the number of potential deliberators compared to Enlightenment visions of democracy).⁴⁹ The specific sites of deliberation are not well-defined in the Aristotelian conception, perhaps because Aristotle feels they are variable between regimes, but in a democracy, the simplest definition is that a deliberative space comes into existence wherever two or more citizens are gathered and engaged in discourse.⁵⁰ This would generally coincide with the Habermasian definition of the public sphere, which “comes into existence whenever and wherever all affected by general social and political norms of action engage in a practical discourse.”⁵¹ The “fine and just thing” is for citizens to take turns in order to satisfy the demands of equality and similarity, so the deliberative space need not be one in which all citizens participate all of the time, but something universally accessible and through which citizens may cycle.⁵²

Rhetoric is the device by which we can persuade others of the truths we have arrived at through contemplation, but unlike the discourse found in the ideals of the

⁴⁹ Triadafilos Triadafilopoulos, “Politics, Speech, and the Art of Persuasion: Toward an Aristotelian Conception of the Public Sphere.” *Journal of Politics* 61, no. 3 (1999): 748.

⁵⁰ *Ibid.*, 751.

⁵¹ Seyla Benhabib, “Models of Public Space: Hannah Arendt, the Liberal Tradition, and Jürgen Habermas,” in *Habermas and the Public Sphere*, ed. Craig Calhoun (Cambridge, MA: MIT Press, 1992), 87.

⁵² Aristotle, *The Politics* 1325a34. The nature of the discursive space is dealt with more thoroughly in the Rhetoric. The deliberative space is one in which rhetoric is performed in one of three possible forms: the political, the forensic and the epideictic. Rhetoric itself is the counterpart of dialectic; while dialectic allows us to discover truths, rhetoric can communicate claims to truth. Aristotle remarks that, in a democracy, the procedures by which judgement and moral knowledge are arrived at are ideally collective, and that competing truth-claims can be contested and settled in the public sphere, in a foreshadowing of deliberative democratic principles. Yet he does not hold political discourse in the same esteem as Arendt or Habermas, and maintains that philosophical contemplation still remains superior. Unlike Habermas, Aristotle does not believe that universalizable norms can be apprehended intersubjectively through rational discourse.

enlightenment, that persuasion cannot come as a simple delivery of reasoned, rational, logical argument and cold evidence. Rhetoric admits of persuasion, and persuasion can be used to deceive. The persuasive capacity of rhetoric has three elements: the character of the speaker, or the *ethos*, which ideally means an image of credibility or trustworthiness created through the speech rather than that the audience believes to exist before the speech has begun; the appeal to emotion, or *pathos*, allowing emotional content in speech to appeal to the mood of an audience and requiring an understanding of human character; and the rationality of the speaker's arguments, or *logos*, which is what – in the scientific or Kantian view – would be the main or the only element, consisting of sound logic and credible evidence.⁵³

Aristotle rejects the arguments of some of his contemporaries, who contend that the character of a speaker has no bearing on his powers of persuasion. *Ceteris paribus*, the speaker who is either of a more upstanding, truthful, honourable nature – the more *virtuous* speaker, in Aristotelian terms – or the speaker who can create such a persona through speech will be the more persuasive, because humans lend support to an argument not just because of its merits, but because of the merits of the speaker. *Pathos* refers to what might almost be an act of self-persuasion by the audience via a strong emotional identification with the argument of the speaker. Appeals to emotion may often win an audience over, and one need not necessarily look to totalitarian demagogues to find examples of persuasive arguments based on appeals to (and the exploitation of) anger, pride, fear, or hatred. Finally, there is *logos*, the reason and logic of the speaker's argument itself. In fairness to enlightenment thinkers, *logos* is the only component of a *logically sound* argument, which forbids appeal to emotion or authority as logical

⁵³ Aristotle, *Rhetoric*, 1356a10-20, 25.

fallacies, but Aristotle reminds us that logic and sound evidence alone do not necessarily make an argument convincing. Socrates discovered the truth of this, as his arguments were logically sound but often unpersuasive all the same; since all claims made in public discourse may be treated as opinions regardless of their internal logic, he was never able to satisfactorily demonstrate that it was better to suffer than to do wrong.⁵⁴

The wise orator would not only ensure that his argument was demonstrative, but should also perform a non-rational, emotive display to convince others of the rightness of his character, to put his audience in a receptive mood, and to accurately gauge and then play to their emotions.⁵⁵ The persuasiveness of emotional display in rhetoric ought to seem obvious to an actual observer of politics, as it did to Aristotle, yet many subsequent thinkers seem to have forgotten this or at least to have dismissed it in order to advocate an idealized form of discourse devoid of emotional content. The superior speaker would not just make a logical argument, but aim that argument at the specific audience and bear *pathos* in mind.

Aristotelian rhetoric is not overly concerned with dialectical deliberation, with truth, or with sound argument. Philosophy ought to be based in truth, but Aristotle recognizes that truth, logic and evidence alone may not be enough either to win arguments with others in the deliberative space or to win over crowds. Emotion and character play a significant role, but Aristotle believes that they can be manipulated, and a skilled orator could create a persona of credibility and trustworthiness *ex nihilo*, then proceed to ascertain and play to the passions of his audience; having done so, the logical soundness of his argument and the strength of his evidence would seem almost irrelevant.

⁵⁴ Leah Bradshaw, *Acting and Thinking: The Political Thought of Hannah Arendt* (Toronto: University of Toronto Press, 1989), 71.

⁵⁵ Aristotle, *Rhetoric*, 1378a.

Regrettably, rhetoric can therefore be a tool for deceit and manipulation, since the non-rational components of it can be crafted consciously.

Not only does rhetoric allow for deception, but the sort of regimes which Plato and Aristotle desire must depend at least in part upon deceit. Aristotle is coyer on the subject of deception than Plato, and perhaps his relative silence on the subject suggests a hope that the elitist regime he favours would be possible without wholesale deception, but Plato holds no illusions about this.⁵⁶ In the *Poetics*, the former remarks that in composition “one should prefer what is convincing but impossible over what is unconvincing but possible.”⁵⁷ Plato does not approve of deception in poetry, as Aristotle does, but is far more of a realist concerning deception in politics: the City in Speech and the Myth of Er both explicitly advocate deception of the underclasses in order to preserve the integrity of the state. It seems, with Plato, that it is not deception itself that is to be considered wrong, only deception for frivolous, anti-social purposes. This could not be further from the openness, publicity, and adherence to truth and fact above all else seen in the Enlightenment.

The possibility of deception is doubtless affected by the fact that, in the Classical period, there was really no option for discourse other than personal, face-to-face communication. The *agora* was no mere metaphor, but the actual site of political deliberation and discussion, where people would be gathered together for interaction in a public yet also in a personal way. Each person would be exposed to others who could hear not only what he had to say, but see the manner in which he said it and the sort of character he was; in turn, the speaker was able to assess *pathos* in those he spoke to. Any

⁵⁶ Paul Woodruff, “Aristotle on Mimesis,” in *Essays on Aristotle’s Poetics*, ed. Amelie Oksenberg Rorty (Princeton, NJ: Princeton University Press, 1992), 83.

⁵⁷ Aristotle, *The Poetics*, 1461b9-12.

consideration of what might be lost in deliberation without face-to-face contact was of no practical purpose, an academic exercise which would suppose technology that would not exist for thousands of years, but in our age, that is no longer moot. Hannah Arendt discerned a fourth identifying, revelatory component in speech, an unconscious and truthful counterpart to the cultivated, manipulated and manipulative *ethos*.

In acting and speaking, men show who they are, reveal actively their unique personal identities and thus make their appearance in the human world... This disclosure of “who” in contradistinction to “what” somebody is... is implicit in everything somebody says and does. It can be hidden only in complete silence and perfect passivity, but its disclosure can almost never be achieved as a wilful purpose, as though one possessed and could dispose of this “who” in the same manner he has and can dispose of his qualities. On the contrary, it is more than likely that the “who,” which appears so clearly and unmistakably to others, remains hidden from the person himself, like the *daimon* in Greek religion which accompanies each man throughout his life, always looking over his shoulder from behind and thus visible only to those he encounters. This revelatory quality of speech and action comes to the fore where people are with others... that is, in sheer human togetherness. Although nobody knows whom he reveals when he discloses himself in deed or word, he must be willing to risk the disclosure... In these instances [where human togetherness is lost]... speech becomes indeed “mere talk,” simply one more means toward the end... and [its] achievement, like all other achievements, cannot disclose the “who,” the unique and distinct identity of the agent.⁵⁸

This is not a mere repetition or reiteration of Aristotelian *ethos*, considered in the *Rhetoric* to be something that could be cultivated and affected as Mark Antony put on a façade of grief and anger to win a crowd. The nature of “who” comes across through acting and speaking, and the speaker can neither control it nor, in all likelihood, even perceive it. The wary member of the Roman mob should have been able to perceive what Antony was displaying without speaking and what he was not able to control: that his emotional display was faked, and that he was using rhetorical tricks to whip a crowd into

⁵⁸ Arendt, *The Human Condition*, 179-180.

a bloodlust. Those who are willing to heed these messages and cues are able to find the truth behind the synthetic *ethos*. It is a safeguard against deceit, but it requires personal communication.

The crucial aspect of Arendt's proposal is that there is something involuntarily transmitted by the speaker in all speech and action, an undercurrent to the intentional manipulation of *logos*, *pathos* and *ethos*. Arendt believes that this is a necessary and an indispensable part of public deliberation and discourse because it allows us to see the "who" behind the speaker, and since it is not within their control, allows a glimpse into their true motives and character. Aristotle was correct to discern that the character of the speaker was important, but the audience desires the portrayal of an accurate image of that character, whereas the speaker may not. In fact, an accurate portrayal of character may even be disastrous for the speaker. It is in their interests to cultivate an *ethos* likely to show them as a trustworthy person of good and forthright character, somebody intelligent and educated in the matter under discussion, and somebody who would not deceive his audience even if they had reason to. In the political community, especially for a functional deliberative democracy, it is in the interest of the audience and the political community at large that the speaker's true character be revealed, so that he can be judged by who they truly are, and not by the *ethos* they cultivate. Arendt argues for immediacy and physical presence. She insists on the primacy of open, face-to-face discourse, and argues that modern society does not allow a truly public sphere because it has blurred the lines between private and public so greatly.⁵⁹ Without this face-to-face communication, the ability to perceive the *daimones* of one's interlocutors becomes harder as

⁵⁹ Triadafilopoulos, "Politics, Speech, and the Art of Persuasion," 751.

communication becomes more abstracted from the primitive immediacy of personal conversation and oratory.

We have identified the Classical perspectives on the intellectual virtues, on science and technology, and on public space and public deliberation. As will be seen, these contrast with the perspectives offered in the Enlightenment, but they deserve to be examined at such length not only because they form the groundwork upon which later philosophical disciplines have built (even if they have substantially remodeled, to continue the analogy), but because, even today, they form a keystone in counter-arguments to technological, Enlightenment thought.

Before moving on, the role of *phronesis* as the highest of the intellectual virtues should be re-emphasized. Prudence guides and governs the correct application of the lesser virtues, including *techne* and *episteme*, and the role that habit, character, contemplation, and feeling have to play in *phronesis* deserves repeating. It is something that can be attained through good character and inculcation, through contemplation rather than (or in addition to) study, experimentation, and observation, and it emphasizes personal judgement in decision-making rather than strictly evidence-based and methodical calculations.

On the subject of the intellectual virtues, the relationship between *techne* and *episteme* should also be restated. *Techne* works towards practical goals; it is an applied skill, like engineering or surgery, aimed at producing a change in the world. *Episteme* is “pure” knowledge which serves to increase human knowledge but without an immediate application (or perhaps even without any application at all), such as astronomy or physics. Of course, both astronomy and physics can have practical applications, such as

navigation or the design of integrated circuits, and I choose these examples deliberately, for they illustrate the blurring of *techné* and *epistēmē* well. It is easy to create these airtight categories for abstract and practical knowledge, but actually fitting fields of study neatly into them is another matter; Plato's *Charmides* illustrates that much. Nevertheless, both must be governed by and serve *phronesis* if virtuous conduct, useful study, and wise application are to be achieved.

In the Greek mode of thought, the public space is something which must be a physical space into which actors may rise from the private spaces of the home. The exercise of good judgement and the revelatory power of *phronesis* depend upon the physical presence of interlocutors. Discourse in the public space contains *logos*, but also *ethos* and *pathos*, and while Aristotle admits of their power to deceive, he views them as vital components in discourse and advises on their mastery, while his revivalists revisit them as essential, moderating influences over the straitjacket of pure *logos* which they feel has drowned out the other characteristics of rhetoric.

The combination of requirements for *phronesis* and for participation in Classical public spaces lends political discourse an elitist air. *Phronesis* requires contemplation, contemplation requires leisure, and leisure requires wealth; Aristotle admits as much – the *phronimos* must be a man (and this is meant in the sense of “maleness,” not of “humanity,” for another aspect of this elitism is its gendered nature) and must possess sufficient means that he does not have to labour and can concentrate on developing his character, his soul, and his powers of reason. The *agora* as a physical space requires the same degree of leisure, moreover, since working people would not be able to take time out of their labour to participate in public discussions. Neither Aristotle nor Plato would

view this as a weakness, for they hold democracy in disdain if not contempt, and both generally advocate for government of the “superior” men over their less noble, intelligent, or learned fellows. This elitist view holds true throughout Classical thought, and while there may be much to admire in the ideas of virtue, moderation, and magnanimous character, it should be borne in mind by the careful reader that this philosophy is and has been fertile ground for despotism, eugenics, slavery, and subjugation. It is against this ugly side of the Classical view that the Enlightenment philosophers seemingly wish to be compared.

Part II: Technological Communication

The Enlightenment tradition is one which will doubtless be friendlier to modern ears. For all of the appeal that Aristotle’s arguments for virtue and contemplation have, the elitism, deceit, and heavy-handed “benevolent” despotism of the ancients is a heavy burden for that intellectual school to bear; unlike the Aristotelian revivalists, I find it too much so. Instead, I have turned to Immanuel Kant’s work as the “hope” of the Western tradition – egalitarian in nature, advocating openness and disclosure in public business, and absolutely unbending in its demand for universal human rights and human liberty, not just for elites, but for all. In place of Greek national chauvinism, for example, unpleasantly tinged with racism against the “Eastern peoples” and the “naturally slavish” as it is, Kant introduces universal cosmopolitanism, a political and social regime in which other cultures and languages are to be welcomed and included. Exactly how to implement this has been fraught with difficulty, and the concept is not without its own internal

contradictions;⁶⁰ however, the teleology of this intellectual regime is one of universalism and acceptance rather than nationalistic domination, and I find that to be preferable – if for no other reason than that it seems to be logically far more defensible. Each nation and culture generally conceives itself superior, for example; cultures as diverse as the British, the Aztecs, the Mongols, and the Mali built great empires and subjugated other peoples, and each culture’s chauvinists had arguments for their own superiority and the predestiny of their domination which often seem indistinguishable. Absent a consensus on which is culture or nation is superior, equality seems the most mutually agreeable solution, for while all may want more, none would settle for less.

Similarly, Kant’s arguments on human rights, liberty, and equality differ markedly from those of the ancients. Aristotle advocates the subjugation of women and the naturally slavish, as has been discussed above. How much this was actually intended to be practiced, or the reasons for his arguments, may be debatable. At the very least, though, it seems clear that Aristotle believes that virtue and *eudaimonia* are only available to the select few blessed with good birth, money, intelligence, and of sound body and mind. Meanwhile, Plato builds his City in Speech upon lies, deception, and what we would probably label the abuse of power; the lower orders are to be kept ignorant and fed myths and legends about the city and its class divisions, deceived as to the true nature of affairs for the health of the state and for their own good. The reverence afforded to the philosopher-king is strongly reminiscent of the cult of personality as practiced under Stalin or Mao, and although Plato believes that this tissue of lies serves the greater good of the state, so too did a great many under the aforementioned tyrannies.

⁶⁰ See, for example, Wendy Brown’s *Regulating Aversion: Tolerance in the Age of Identity and Empire* (Princeton, NJ: Princeton University Press, 2009).

Again, it is debatable whether the City in Speech is intended as a serious proposal or as a warning, or perhaps an illustrative satire of the sophistic arguments of those who might seriously propose such a system, but if Plato does not advocate it himself, he does not make that easy to see, and neither does he propose a better alternative.

Kant's maxims make all such regimes impossible. We must always treat other humans as ends in and of themselves, not *merely* as means.⁶¹ Consequently, we cannot lie to others so as to support a certain regime, and cannot use the "lower orders" to bolster the lifestyles of the contemplative class, even if it is so that some of the latter may come to *phronesis*. If that were not enough, the universality maxim forbids lying: if we are only to do that which we would wish to be done universally, then we cannot deceive others, for societies depend upon trust and concord which universal deceit makes impossible.⁶²

It is for these reasons that I use Kant as the central pillar in Western, liberal thought, and why I prefer his rational and egalitarian philosophy to that of the ancients, but as noted in the introduction, the "publicity principle" introduces a paradox with regard to rebellion against tyranny which I hope can be resolved by new internet technologies. Such a reconciliation would be useful, I feel, since there is so much of Kant's political philosophy which is liberal, universal, peaceable, and uplifting, that it would be far better to resolve the contradictions in it than to throw it out or even seek to modify it with Classical principles offensive to Enlightenment thinking, as the Aristotelian revivalists might advocate. However, Kant was not the first in the Enlightenment tradition, and before turning to Kant's work I first wish to frame it. The rejection of emotion in favour of logic and reason, the transition to democracy and

⁶¹ Kant, *Groundwork of the Metaphysics of Morals*, 429.

⁶² Kant, *Groundwork of the Metaphysics of Morals*, 421.

inclusive public discourse, and the move from secrecy to openness are not concepts which Kant introduced but concepts upon which he built, and before moving on to Kant himself, we would be well served to examine them, especially when compared to the Classical perspectives which they reject. We shall see if the foundations of Kantian thought are solid.

Perhaps the most profound change in Enlightenment thought was to replace the Classical conception of the intellectual virtues with one that downplayed or eliminated the importance of “feeling” and of contemplation in favour of logic, reason, evidence, and science. However, the first major Western thinker to place *techne* at the forefront of intellectual virtue may actually have been Plato himself, as noted previously, who made a case for the technician as the ultimate and best ruler of the *polis* in *The Statesman* and, most famously, in his construction of the City in Speech in *The Republic*. At the risk of repetition, Plato is something of an ambiguous writer and there are times where it does not seem clear if he is advocating for or warning against a certain idea, or whether his advice is serious or satirical. Thomas Hobbes is much more unequivocal, however, and makes a clear case for science over human wisdom as a means for correct governance of oneself and of the state in the *Leviathan*. Human judgement, which presumably includes the Aristotelian intellectual virtues of *sophia*, *nous* and *phronesis*, is deemed to be fallible and of use only when man does not have science to guide him. Human reason is reduced to the status of instinct or “gut feeling”: acceptable for use when time is too short or information too scarce for proper, scientific judgement, but to be abandoned unquestioningly wherever proper, scientific inquiry is practical.⁶³

⁶³ Thomas Hobbes, *Leviathan*, ch. V.

As Enlightenment science seemed to be answering the mysteries of the physical world in fields like physics, astronomy, biology, or anatomy, and disproving the theories of the ancients, perhaps it is understandable that Hobbes would reject Aristotelian conceptions of politics and intellectual virtue for those with a better claim to have been derived from science. Aristotle's science was upheld throughout the late Middle Ages with almost religious fervour (and in some cases, the "almost" is inapplicable), and certainly would take a great deal of Classical science as read.⁶⁴ However, so much of it was proven erroneous in the Renaissance, and the new science was supplying the correct answers. The advent of the scientific method also cast doubt onto the wisdom of the ancients, since rigorous adherence to the scientific method produced demonstrably better results.

The scientific method requires four basic steps. Observation is first; the recording and description of some phenomenon which demands explanation since it does not seem to be explained by existing scientific theory.⁶⁵ Next comes the hypothesis, an "educated guess" which would explain the phenomenon and needs to be tested – in fact, a true hypothesis *must* be capable of being tested; as per Karl Popper, a hypothesis must be capable of being proven wrong. Thirdly, the hypothesis must be usable to predict the outcomes of tests, or the existence or qualities of other phenomena, and fourthly, experimental tests must confirm these predictions. Classical science frequently or even generally stops at the second stage – Aristotle, for example, *observed* that mice came from piles of damp hay, aphids occurred on dewy leaves, flies from decaying biological

⁶⁴ Notwithstanding the "Dark Ages," when declining understanding of Greek cut medieval Europe off from a great deal of its intellectual and scientific inheritance.

⁶⁵ It should be noted that in scientific terminology, "hypothesis" and "theory" do not mean the same thing, and that "theory" does not carry the connotations of vagueness, imprecision, or guesswork that it does in common parlance. As far as science is concerned, "theory" means "fact."

material, and so forth; he then *hypothesized* that it was these phenomena which generated the mice, aphids, and flies, and left it at that. Had he continued scientifically, he would not have made this error; a pile of damp hay, isolated and in a sealed environment, will never generate mice. The hypothesis would have been unable to predict outcomes, and would have been unconfirmed by experimentation.⁶⁶

Because of this, it follows that because the ancients often failed to conduct true science in their efforts to explain the universe, even their correct explanations were sometimes owed to luck – the broken clock is right twice a day. Their explanations may have happened to be true from time to time, but even when it was so, it was not because they had followed the scientific method, although this is not to say that when the ancients employed the scientific method, or something very close, correct results were not ascertained for the right reasons. For example, Eratosthenes' measurement of the circumference of the Earth (probably 40,233 km) may have been accurate to within 1%; the correct measurement is 40,075 km. He arrived at this remarkably precise figure through scientific methodology, although there may have been some flaws in it. Aristotle proposed that it was 400,000 stadia, or 63,000-74,000km, depending on which Greek stadion one believes he was referring to (there were five, ranging from 157m to 209m; this problem also affects interpretation of Eratosthenes, who may have been up to 16% off – still, far better than Aristotle's guess), and how he arrived at this wildly inaccurate figure is unknown.⁶⁷ A true scientist should never have guessed, and Aristotle's figure stands as an example of how poor Classical scholars often were at explaining and measuring the world.

⁶⁶ Aristotle, *The History of Animals*, Bk. V ch. 1.

⁶⁷ Aristotle, *De Caelo (On the Heavens)*, Bk. II 297b.

All this cast ancient wisdom in an increasingly poor light from the Scientific Revolution onwards, and those like Hobbes, working in the scientific era, must have wondered how else the ancients might have erred – in philosophy or politics, in their accounts of the virtues or of the ideal composition of a polity. The difference could not be more clearly illustrated than in Hobbes’ recasting of *prudence* in *Leviathan*. Aristotle had understood prudence, *phronesis*, the greatest of intellectual virtues, to be practical wisdom – right action informed not only by intelligence, but by strong and moral character. Prudence is like an instinct, but one honed through a life of contemplation and the habituation of the soul to virtue, a “muscle memory” of virtuous conduct. Prudence cannot be a science, or an art.⁶⁸ Hobbes rejects this entirely and frames *prudence* as an act of calculation, a judgement of future consequences based on knowledge of the world and of past events. Contemplation and character are rejected in favour of sensory experience; the prudent person makes educated guesses about the future based upon what happened in the past, and the extent of wisdom is the extent to which knowledge and experience make our guesses accurate.⁶⁹

This deeper difference between the ancients and the moderns (who, for argument’s sake, are those working during and after the Scientific Revolution) concerning the ideas of the intellectual virtues explains many more superficial differences concerning science, knowledge, and communication. The Greeks observed a phenomenon and arrived at a reasonable explanation; it *feels* right, because individual judgement – wisdom, *phronesis*, *nous* – is a virtue, because contemplation and the conversation with the other within the self are good and acceptable means to

⁶⁸ Aristotle, *Nicomachean Ethics*, 1140b.

⁶⁹ Hobbes, *Leviathan*, Ch. III.

knowledge.⁷⁰ To the sons of the Enlightenment, this is wholly inadequate. One cannot simply say that something is true because it feels true, because one has contemplated and meditated upon it and because a carefully cultivated intellectual virtue has apprehended it as truth. Instead, one's initial thoughts must be verified with empirical observation and testing; moreover, the scientific method demands that one's work be duplicated by others who must reach the same conclusions in order to be valid. Individual judgement and internal wisdom are no longer enough to arrive at the truth.

In this manner, some Enlightenment intellectuals sought to apply scientific principles to politics and society. Utilitarianism is probably the most obvious example of a school of thought born from these ideas. Kant is not a utilitarian, but utilitarianism typifies the rejection of emotion and feeling in favour of rational calculation and scientific principles so well that a discussion of this transition would be incomplete without it. In Aristotelian thought, with which this, too, may be contrasted, a great deal of ethics is left up to the individual who, being (hopefully) pursuant of virtue, will choose the best path. For example, Aristotle's principle of the Golden Mean teaches that the best path is to steer a course between excess and deficiency. Too much bravery is recklessness; the citizen endangers himself and his *polis*. For the statesman, this is disastrous. History is replete with states and polities humbled or destroyed after starting wars they could not hope to win; the citizen-soldier endangers his own life and those of his comrades by his foolhardiness, and sagacious foreign policy may be thrown away by

⁷⁰ Of course, "feeling" right is an oversimplification. What feels right to the *phronimos* will be the right thing, because he has carefully cultivated his intellect and his "inner eye" so as to be a shrewd and even an instinctive judge of the good; what feels right to the vicious man is something else altogether, and for this reason many desires and impulses must be resisted. Nevertheless, the essential point remains: for the Greeks, feeling and instinct *can* be avenues to truth; for the Enlightenment thinkers, if they ever arrive at the truth, it is only by coincidence, and they cannot be relied upon.

reckless conduct on the battlefield. However, the deficiency of bravery is cowardice. The cowardly statesman is exploited, subjugated, or invaded when he fears to flex his military muscle in foreign policy, and the *polis* which pays tribute to the barbarians rather than fighting them may be only storing up future troubles. The cowardly hoplite endangers himself and his comrades as much as his reckless counterpart; to throw down one's arms and run breaks the integrity of the shield-wall and endangers the whole formation.

As simple as these prescriptions seem, and because of that simplicity, their application remains vague. It is left to the individual to judge where the Golden Mean lies. Obvious examples are well and good, but often inapplicable to realistic situations. If the Athenians have broken an enemy flank on the battlefield, is it brave or foolhardy to pursue? The overly cautious general may throw away an opportunity if he holds back and allows an enemy army to survive intact after a rout to fight another day, while the reckless leader may find his forces surrounded and annihilated after pursuing a feigned retreat. The correct course of action must be discerned by a general with sufficient wisdom and experience; Aristotle's approach is to inculcate wisdom and intellectual discipline in the hopes of creating men who will be able to apply their knowledge according to their own initiative. In the military example, since a rulebook cannot anticipate every potential battlefield development, we hope to train and habituate generals to possess good martial "instincts" so they may make case-by-case judgements. We may apply the same principles, in Aristotelian fashion, to other professions and situations, including those concerning ethics.

Utilitarianism – or, at least, some of the utilitarian philosophers – do not want to trust ethics to the judgement of individuals, however. The particular type of utilitarianism

under discussion here is *act utilitarianism*, as posited by Jeremy Bentham or John Stuart Mill. In this theory, morality is strictly linked to the consequences of actions rather than to principles, according to the maxim that one ought to do that which creates the greatest happiness for the most people.⁷¹ An act is morally good only if it is the act that yields the greatest amount of net happiness; all others are at least somewhat less worthy in comparison. There are many criticisms of this philosophy, for example, that there is no overarching principle of justice (e.g. McCloskey's example, framing an innocent member of an ethnic minority for a crime when failing to do so would provoke riots resulting in loss of life).⁷² These critiques are noteworthy and deserve acknowledgement, and, indeed, they may be indicative of ways in which Aristotelian virtue can fill some gaps in the age of calculation, but they are inconsequential here.

The noteworthy aspect of act utilitarianism is the calculation involved. It requires the actor to take a detached position as a "benevolent spectator" who disregards family ties, friendship, proximity, or her own interests in evaluating the merit of her actions, much like the scientist, who must disregard and enact strict experimental controls so as to eliminate her own feelings and biases from the results.⁷³ Again, the contrast with Classical perspectives is obvious. In the *Ethics*, Aristotle spends two books on the subject of friendship, concluding that the best form of friendship is that in which each friend wishes good upon the other for his friend's own sake.⁷⁴ It is an admirable thing to favour one's friends and wish the best for them; far more admirable than to have friends merely because one finds their company pleasant or because they are useful to one in some way.

⁷¹ Shelly Kagan, *Normative Ethics* (Boulder, CO: Westview Press, 1998), 17-22.

⁷² H.J. McCloskey, "An Examination of Restricted Utilitarianism," *The Philosophical Review* 66, no. 4 (1957), 468.

⁷³ J.S. Mill, *Utilitarianism*, Ch. 2.

⁷⁴ Aristotle, *Nichomachean Ethics*, 1156b6-18.

To treat one's friends favourably, then, is not only understandable, but virtuous and moral. This idea is reprehensible to act utilitarianism, under which friendship must never form the basis for one's acts. One may wish good things for one's friends, but one cannot act to bring them about (except if such an action also produces the greatest happiness).

This returns us to the familiar theme of the Enlightenment: the divorce of reason and calculation from the realms of feeling and emotion. *Philia* is borne of feeling, not reason; one should not choose one's friends or lovers by means of rational utility-calculation (for if one does, then one has only built relationships based upon utility, and that sort of relationship is the basest, most fleeting, and ultimately the least rewarding) but, when feeling has led us to friendship, the Classical view is that one ought to do good for one's friends as far as is possible. According to the utilitarians, the feelings of friendship are obstacles to right thought that must be overcome – one ought to cast aside affection and feeling, disregard one's friendships, and act purely according to what reason has laid out as the calculated path to a quantifiable greater good.

This leads to another remarkable aspect of act utilitarianism, and one which has also been subject to criticism: the calculation of happiness. In order to work correctly, the prescriptions for the good society require that happiness be calculable and quantifiable, like commodities or money. Commerce and science lend themselves easily to cold rationality; whichever business model leads to the greatest profit is the best, and the greatest profit is easy to measure: a hundred dollars is always worth ten times as much as ten dollars, and thus, a hundred dollars is always preferable to ten dollars – or, even more precisely, a hundred dollars is better than ten dollars by a factor of ten. The idea that happiness or virtue might be reduced to such easily calculable and quantifiable means

would probably have been laughable to the ancients, and yet the act utilitarians not only proposed precisely that, but actively pursued ways in which to measure and calculate happiness.

This form of utilitarianism, divorced from much of what the ancients defined as essential to humanity, can seem quite chilling; as with Classical philosophy, there is a sinister side. One of the most troubling projects derived from this coldly calculating view of politics and society was the Panopticon, Bentham's radical new concept for the design of a prison. Bentham believed that the principles and the design of the Panopticon could be applied on a grand social scale, and that it would achieve the promises made for the utopias of Plato or More – "Morals reformed - health preserved - industry invigorated instruction diffused - public burthens lightened - Economy seated, as it were, upon a rock - the Gordian knot of the Poor-Laws are not cut, but untied - all by a simple idea in Architecture!"⁷⁵ While there is something unsettling, even nightmarish, about the City in Speech or Utopia, the ambiguity of Plato and More leaves the reader to wonder if they were written as warnings, visions of a totalitarian hell where individual will withers and dies. Bentham, however, offers nothing but sincere belief that the Panopticon will fulfill the grandiose promises he has made on its behalf, even going so far as to commission an architect to draw up plans for it, and persuading the government to embark on its construction and purchase land worth £12,000 (worth approximately £13 million in 2012).⁷⁶

⁷⁵ Jeremy Bentham, "Panopticon; or The Inspection-House," in *The Panopticon Writings*, ed. Miran Bozovic (London: Verso, 1995), 31.

⁷⁶ Janet Semple, *Bentham's Prison: A study of the Panopticon penitentiary* (Oxford: Clarendon, 1993), 118, 217-22.

The concept of the Panopticon was a prison where each prisoner could be observed by the warden at any time, but could never know if he was being observed. Good behaviour on the part of the prisoners could be ensured with only one warden on duty, since if the prisoner was unaware if he was being observed at any given time, his safest course of action would be to assume he was *always* being observed. Bentham imagined that this principle could be extended to society at large in order to eliminate crime, laziness, the defrauding of the welfare state, and so forth; Foucault, quite famously, argued that it already had been.⁷⁷ Foucault understood discipline not exclusively as the exercise of power by authorities over the subservient, but a general function of power exercised by all, enforced not only by the state but by friends, neighbours and colleagues who ceaselessly observe each other and enforce rules and norms by censure and ostracism. In the increasingly interconnected and public world, the link to Panopticism becomes obvious; as the threshold between the public and the private realms becomes increasingly blurred and irrelevant, as Arendt noted, one is truly never sure when one is being observed.⁷⁸

In the age of social media, this is even truer, and the advents of the Tweet and the Status Update have introduced an element of self-observation to Panopticism. The “prisoner” himself now often generates the observations which are surveilled by the rest of society, with the attendant exercise of power over nonconformists, as suffered by those people who find themselves dismissed because they were “tagged” in a photographic record of drunken revelry, or ostracized by their families after being inadvertently outed in a status update. To this must be added the recent revelations (at the time of writing)

⁷⁷ Michel Foucault, “Panopticism,” in *The Foucault Reader*, ed. Paul Rabinow (New York: Vintage, 2010), 206-213.

⁷⁸ Arendt, *The Human Condition*, 24-33.

concerning the PRISM program, under which American intelligence agencies have been clandestinely harvesting intelligence from all manner of online communications and media, including those expressly designated as private and even those which were encrypted. Clearly, the Foucauldian interpretation of omnipresent Panopticism is truer than ever in the internet age, but Panopticism is also an example of the tendency of scientific thought, when applied to the social sciences and philosophy, to desire control and regimentation. Act-utilitarianism and Panopticism are extreme examples against which the objections of the Aristotelian revivalists reverberate most clearly, but for all that, it is not the case that the Enlightenment approach to communication and the public space is always necessarily cold, controlling, or frightening.⁷⁹ As has been noted above, Classical perspectives sometimes advocate secrecy and deceit in public discourse, but there is a strong current in Enlightenment thought not for spying and the exercise of power, but for publicity, openness, and full disclosure.

In *Of Publicity*, Bentham argues that publicity must be sought for its beneficial effects on the population. He divides the public into three classes. The first contains the vast majority of people, who will never inform themselves or produce reasoned arguments or opinions (Bentham attributes this torpor to a lack of time and leisure, which is a much more charitable analysis than that of many other thinkers) and to whom the public disclosure of information would make no difference since they have no real interest in public affairs in any case. The second group are those who “borrow” opinions and judgements from others because they lack the time to consider and judge information

⁷⁹ Foucault argued that the final and ultimate form of the Panopticon was when it composed the entirety of society – that everywhere one was, one was being observed, and rather than elites doing the observing, one’s own peers and neighbours would observe and thus enforce social norms and structures. Looking at the internet and social media now, and the revelations of PRISM, online spying, and data harvesting, it is hard to argue against him.

for themselves, while the third are those who can take and process information, who are capable of critical thought, and who will actually judge for themselves. The third class will be in a better position to make correct judgements if information is free and public, and the second, insomuch as they parrot the opinions of the third, will also benefit as the decisions of the third group “trickle down.”⁸⁰

This argument is entirely consequentialist: publicity produces better outcomes for society. The public will be better off when information is made available to them, better decisions will be made, and better outcomes arrived at. Science depends on openness, upon free access to information and the free flow of ideas. Peer-review and the scientific method rely upon as many eyes as possible examining experiments and results; in politics, sound judgement depends upon information reaching as many individuals as possible. This is why Bentham, the scientific-era consequentialist, supported publicity so absolutely. Classical views, which are elitist inasmuch as not all individuals are possessed of the training or the virtue to make sound judgements, do not require publicity. In fact, full public disclosure in politics may be harmful – the naturally slavish are liable to make poor judgements. In both Plato and Aristotle, there is a common theme that one ought to be ruled by one’s betters, but such an elitist and undemocratic mode of governance depends upon at least a measure of secrecy and upon restricting information from the public. As I have remarked before, the engineering of myth is one such deceit; myth passed on in genuine belief is one thing, but myth created from whole cloth to serve the interests of the state is another. Such myth also makes it harder to think critically about

⁸⁰ Jeremy Bentham, “Chapter II: Of Publicity,” in *The Works of Jeremy Bentham*, published under the Superintendence of his Executor, John Bowring (Edinburgh: William Tait, 1838-1843), § 2. 11 vols. Vol. 2.

the state; witness the effect that mythology and blind tradition have had on public discourses over the rights of women or ethnic minorities, for instance.

The scientific era, and the philosophers who worked in it, changed our modes of thinking about publicity and free information. Rather than observation, and especially tradition and myth, we would make our decisions and our policies based upon the scientific method, with hypothesis, experimentation, and verification. Rather than being governed by elites recruited for their virtues and their strength of character, we would be governed by experts in a technocratic manner. These experts depend upon publicity and the free flow of information to make their decisions, just as science depends upon them.

The obvious and clear example of the consequentialists establishes the tone of the Enlightenment challenge to Classical perspectives on publicity and communication. However, even as it protests the Classical resort to secrecy, deceit, and elitism, as has been seen, there are more sinister aspects of act-utilitarianism as well – the strict consequentialism which can sometimes lead to the trampling of individual interests, and the drive towards social engineering and Panopticism, reminiscent of the ancients albeit differing in tone. In answer to these problems, I wish to introduce the thought of Immanuel Kant, who inherits much of the Enlightenment tradition as it pertains to openness, publicity, and the rejection of elitism, but introduces a strict code of individual rights derived from axiomatic principle, rather than either a conception of virtue or from the rational calculation of outcomes. Rather than the act-utilitarian's adherence to consequences as the sole measure of morality, Kantian deontology asks how an action conforms to a set of rules as a gauge of its morality. Perhaps the Kantian approach is the more truly “scientific,” for Kant sets off in search of the first principles, the *a priori* rules,

of ethics. Just as the scientist wishes to discover the irreducible laws of the universe, dependent upon nothing further, which can be used to model and describe the world, Kant looks for those irreducible rules of morality which depend upon nothing else, and which can be used to decide what is moral – to build a model of morality.

To reiterate Kant's position on publicity and rebellion, as given in the introduction, it is that "all actions affecting the rights of other human beings are wrong if their maxim is not compatible with their being made public." This is argued to forbid rebellion against tyranny, for the rebels cannot make their position publicly known. To the utilitarians and other consequentialists, Kant's publicity principle must surely seem startling and alarming, for it purports to ascertain the legitimacy of power without any deliberation or consideration over how that power is used. It is rather reminiscent of the Hobbesian principle that a tyrant can never be justifiably overthrown, although Hobbes himself argued from consequentialist grounds – the potential breakdown of society risked by rebellion – rather than because rebellion violated any *a priori* principle. The Kantian approach seems rather different from those of the Enlightenment consequentialists, but it is actually quite similar. They both leave behind the Aristotelian ideas that ethical and moral questions cannot be answered from a rulebook but must be judged by an individual whose wisdom and sense of justice have been carefully cultivated. In law, the Classical perspective would be equivalent to leaving sentencing entirely in the hands of a judge whose expertise is trusted to produce justice; in medicine, to leaving diagnosis entirely in the hands of the physician who is well-trained but, nevertheless, whose intuition and judgement are ultimately responsible for the outcomes he produces.⁸¹

⁸¹ Perhaps, in Enlightenment tradition, this is part – at a very deep or subconscious level – for the increasing prescription of sentencing in legislation or the prevalence of computer-aided diagnosis. We

Kant's argument might be situated as giving rise to a consequentialist interpretation. The example of the tyrant invokes fears of the punishment which a tyrant could inflict upon us. It might be assumed that nobody could conspire publicly against the tyrant for fear of the rap at the door in the middle of the night from the agents of some Cheka or Stasi, or for fear of appearing on some proscription list, but still, there might be the incredibly brave (or incredibly stupid) who would make their opposition known regardless.

Kant's position is that the public conspiracy, if such a thing could exist, is self-defeating, internally inconsistent, and logically impossible. It is irrelevant that its members depend on secrecy to survive, because the idea of the conspiracy itself depends on secrecy. Were it proclaimed and all its members exposed, even if those members did not fear death, the tyrant could snuff it out before it had had a chance to recruit anyone or gain any traction. A blasé attitude towards the fate of the individual conspirators is not at all helpful to the health of the conspiracy, since the conspiracy cannot survive the conspirators. Kant sees three primary reasons for undertaking actions in secret: because open declaration would conflict with the intentions of the action, because open declaration would endanger the success of the action, and because open declaration would generate opposition from others.⁸² The safety of the secret actors themselves is never listed as a factor.

Bentham's tripartite definition of the public also forces us to question the nature of "the public" itself. The threefold Benthamite public is a refinement of a dualistic

cannot trust the fallible, human judgement of the magistrate or the diagnostician; it is more scientific to place trust in an inflexible rule-based system.

⁸² James J. Marquardt, "Kant and Bentham on Publicity: Implications for Transparency and the Liberal Democratic Peace" (Prepared for delivery at the 102nd Annual Meeting of the American Political Science Association, Philadelphia, PA, August 30-September 3, 2006), 9.

definition, whose two aspects Jodi Dean defines as the “public-supposed-to-know” and the “public-supposed-to-believe.” The first reflect Bentham’s conception of an incorruptible and powerful “judiciary,” whether they exercise formal, juridical powers or not, who require information in order to produce the more-or-less unerring judgement which Bentham expects from them. The second are closer to Bentham’s class of the “borrowers of opinion” – a naïve, credulous mass that accepts and repeats the loudest and most prevalent of ideas offered in public discourse.⁸³ In John Stuart Mill’s marketplace of ideas, these are the readers of the best-sellers and the airport novels, the viewers of the summer blockbuster movies, and the audience for Top 20 singles – popular, uninspired, unaesthetic, and devoid of nuance or insight.

Dean goes on to ask how we could even believe in something like the popular conception of the public as a single body, homogenous and monolithic as it is supposed to be. We cannot reduce the public simply to the polled, or to the electorate, or to the voters, while our increasingly multicultural and multilingual societies preclude unity along cultural, linguistic, racial, or religious lines. Even the culturally and ethnically homogenous society is fractured by gender, class, wealth, social status, and age. That being the case, what sense does it make to discuss some universal “we” to whom virtually everybody is some sort of exception or another?⁸⁴

These objections to the notion of the unified public are post-Kantian; Kant himself took publicity as a potential. Because Kant is not a consequentialist, the problems of what the public may do with the information are irrelevant; publicity is desirable as an axiom. As a consequentialist, Bentham is obliged to consider the results of publicity in

⁸³ Jodi Dean, *Publicity’s Secret: How Technoculture Capitalizes on Democracy* (Ithaca, NY: Cornell University Press, 2002), 18-23.

⁸⁴ *Ibid.*, 9.

his examination of it. In such a manner, the question of *to whom* information is released, and what that audience will make of it, is as important as *what* that information is, since it is of virtually equal weight in assessing the results of such a release. Information made available to the indifferent will have no effect. Information made available to those who simply do not care is worth nothing.

Kant has no use for distinctions between different categories of the public. As a deontologist, the principle itself is what matters. Publicity is a principle to be followed, and so that principle alone becomes the arbiter of the good. Thus, Kant can fully justify his position on rebellion against tyranny. The consequentialist would argue that a tyrant can justly be overthrown and that rebellion against a tyrant is righteous because of the preferable consequences which it brings about; Kant can argue that the rebellion is wrong because it does not adhere to *a priori* principle. Publicity effectively becomes a form of control, as Habermas pointed out; it becomes a force for legitimation because it can wear a cloak of reason.⁸⁵ The tyrant can claim to adhere to a principle which his opponents cannot; the tyranny which drove them underground becomes a vehicle of legitimation while the rebels are labelled as rats, cockroaches, or those other pests and vermin which scurry away from the light. Sulla could claim to be a legitimate ruler because his proscriptions were public and he had to hide nothing; he could also claim his enemies (real or imagined) had no legitimate claim against him which could be voiced in the same forums where he had displayed their death warrants. Power was his for as long as he could cling to it, for Kant also wrote that since rebellion was the highest of wrongs, a

⁸⁵ Jürgen Habermas, *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*, trans. Thomas Burger & Frederick Lawrence (Cambridge, MA: MIT Press, 1989), 28.

deposed tyrant would run afoul of the same problem and could not rightfully engineer his own return to power in secret.⁸⁶

In Kant's time, publicity was invariably tied to identifiability. These ties were not always drawn tight, but they were always there, and the threads of any conspiracy would eventually lead back to the conspirator if followed with sufficient cunning and vigour. The anti-espionage activities of both the CIA and the KGB, for instance, relied upon this theory. Informants can be hired, dead drops can be surveilled, mail opened, phones tapped, apartments bugged, and suspects tailed. Had the British colonial government been such past masters at counter-espionage as the KGB, even a mere agitator (rather than an outright rebel) such as Thomas Paine might very well have found himself under arrest. Even if it were possible for him to remain anonymous indefinitely, any group swayed by his arguments could not have been nearly so circumspect if they wished to actually *apply* his ideas. Guy Fawkes's conspiracy came undone when one of the conspirators revealed the plot in a letter of warning. That plot had to be made public, in at least a very limited way, not just to recruit enough members but to produce the insurgency the conspirators hoped for after the destruction of Parliament. The only way to remain truly anonymous was to conspire only in one's own mind; the more an idea is shared with others, the more likely it is to become public.

However, something Kant could not have foreseen was the possibility of publicity without attendant identifiability. Many of the dialogues concerning the internet involve the issues of increased exposure and the lack of privacy that the proliferation of both

⁸⁶ Kant, *Perpetual Peace*, 126.

social networking sites and “spyware” have raised.⁸⁷ However, it is also nevertheless possible to use the internet without being identified (much less profiled for marketing purposes), and without an unauthorized interceptor of one’s communications being able to view their contents.⁸⁸ Kant’s hopes at the time of writing were that technology would continue to bring humanity closer together on a spherical and finite earth on whose surface we cannot escape from one another. He mentioned the ship and the camel as bringing humans from diverse and separate places together so that the peoples of distant continents could enter into peaceful relations, one day to be governed by public laws, to further the advancement of the cosmopolitan constitution.⁸⁹ What would he have thought of the railroad, the telegraph, or the telephone, let alone the internet?

Perhaps Kant even anticipated online communication. It may seem ridiculous to propose that an 18th century philosopher foresaw the internet, but Habermas remarks upon the incredible prescience and insight in Kant’s anticipation of the global public sphere, in which the degree of global interconnectedness is such that injustice anywhere in the world will be felt everywhere in the world, which is the only way to make the continual advance towards perpetual peace.⁹⁰ This passage seems to refer to the internet or something very much like it, a truly global and universal community such as Kant might have dreamed of, and one which has become a vehicle for fighting tyranny and oppression. The use of the internet and new social media in the quest of so many Arab

⁸⁷ See, for example, T. Dinev, P. Hart, M. Mullen, “Internet privacy concerns and beliefs about government surveillance – an empirical investigation,” in *Journal of Strategic Information Systems* 17 (2008), 214-233.

⁸⁸ Diane Rowland, “Privacy, Freedom of Expression and CyberSLAPPs: Fostering Anonymity on the Internet?” *International Review of Law, Computers and Technology* 17, no. 3 (2003): 309.

⁸⁹ Kant, *Perpetual Peace*, 106.

⁹⁰ Jürgen Habermas, “Kant’s Idea of Perpetual Peace with the Benefit of Two Hundred Years’ Hindsight”, in *Perpetual Peace: Essays on Kant’s Cosmopolitan Ideal*, ed. James Bohman & Matthias Lutz-Bachmann (Cambridge, MA & London, UK: MIT Press, 1997), 124.

citizenries for democracy and human rights – a most cosmopolitan quest – cannot be ignored. Neither can the importance of the internet in bringing the matter to the attention of the entire world, which has made the affair of Arab human rights into an affair of all humanity. It is hard to imagine what Kant might have been speaking of, if not this.

Internet technology has provided the possibility for securely private and anonymous communication, even where oppressive state censorship and surveillance is found. For example, it is possible to send e-mail anonymously, with the right software. E-mails contain “headers” detailing the origins of the email and the servers it was transmitted through, complete with IP addresses.⁹¹ An anonymous re-mailer offers a service which forwards e-mails (and attached files, if desired) to other addresses on the internet, but first strips the headers from the e-mail, meaning that any party who intercepts the message has no way of knowing from where it originated or who the original sender was (assuming they were not so foolish as to include their identity in the body text). The most secure re-mailers will also use public key cryptography, which can encrypt information such that it can only be read by a person with the correct key. A good re-mailer will never retain any database of addresses. The re-mailers themselves cannot tell where the messages originated; the software operates without human supervision and locks even its owners and administrators out of the process.⁹²

For the sake of reference, 256-bit keys are commonly used in encryption; the possible combinations expressible in 256 bits are approximately equal to the number of atoms in the known universe (Google moved to a 1024-bit DomainKeys Identified Mail –

⁹¹ The IP address is a number assigned to any computer or device attached to a network. They are given out by a relatively small number of servers, and given the IP address, it is generally possible to discover the physical address of the computer that requested it through the server’s records of the subscriber to whom it belongs.

⁹² Yaman Akdeniz, “Anonymity, Democracy and Cyberspace,” *Social Research* 69, no. 1 (2002): 225

DKIM – system in 2012). Moreover, the common RSA encryption protocol allows for a secure key exchange even when that exchange is under surveillance or attack by an adversary.⁹³ This technology obviously offers incredibly powerful tools for anonymity that have never existed before. Using these tools, a person could post messages to a website, to an online forum or discussion board, or to an e-mail list without anybody at any point in the chain of communications being able to identify them – potentially full publicity, with messages visible to anyone with internet access (more, if such messages are reprinted and distributed via non-digital methods, although non-digital communications are obviously not as secure), and full anonymity.⁹⁴ The darknet systems – of which I shall offer a few examples below – are typically used as friend-to-friend networks, thus violating the Kantian maxim, but there is no reason why the final recipient of a message sent over a darknet should not be a public outlet. My point here is that, whatever the actual implementations of these technologies, they have the potential to upset Kant's prohibition on rebellion as made on the grounds of secrecy.

Freenet is a platform which has been designed from the ground up as a means to precisely the sort of free speech, broadcast to as wide a public as possible, with as much anonymity and security as the internet can possibly provide. The Freenet network was designed with four priorities in mind: firstly, privacy for information producers, consumers and holders; secondly, resistance to information censorship; thirdly, high

⁹³ George Ou, "Is encryption really crackable?" ZD Net, April 30, 2006. <http://www.zdnet.com/blog/ou/is-encryption-really-crackable/204> (accessed 2011-04-07).

⁹⁴ It may be wondered how so many people are hacked if this encryption is so secure. Most commonly, the message is not hacked in-transit but at either end, and not by brute-force but by exploiting the mistakes of an administrator who does not fully understand security implementation – many, if not most, hacked websites and services did not use salted hashes, for instance – or by guessing the password. A 256-bit key will not save a user whose password is "changeme," and a user who employs the same password on multiple websites is precisely as secure as the least-secure of those sites.

availability and reliability through decentralization; and finally, efficient, scalable, and adaptive storage and routing. Freenet participants each run a node that provides the network with some storage space. To add a new file, a user sends the network an insert message containing the file and its assigned location-independent globally unique identifier (GUID), which causes the file to be stored on some set of nodes. During a file's lifetime, it might migrate to or be replicated on other nodes. To retrieve a file, a user sends out a request message containing the GUID key. When the request reaches one of the nodes where the file is stored, that node passes the data back to the request's originator.⁹⁵

To add a file one first chooses a short text description. A subspace can be created by first generating a random public-private key pair to identify it. One then calculates the file's signed-subspace key (SSK) by hashing the public half of the subspace key and the descriptive string independently before concatenating them and hashing again. The SSK can be read by anyone, but only their owners may write to them.⁹⁶ To retrieve a file from a subspace, you need only the subspace's public key and the descriptive string, from which you can recreate the SSK. Adding or updating a file, on the other hand, requires the private key in order to generate a valid signature. SSKs thus facilitate trust by guaranteeing that the same pseudonymous person created all files in the subspace, even

⁹⁵ Ian Clarke, Scott G. Miller, Theodore W. Hong, Oskar Sandberg, "Protecting Free Expression Online with Freenet" in *IEEE Internet Computing* Jan-Feb 2002; 41.

⁹⁶ A hash is generated from data (since changing the data changes the hash) and can verify the integrity of data, but cannot be used to reconstruct the data. For example, adding all the digits of your phone number together creates a hash. Having the hash alone does not grant the possessor your phone number, but if you have the phone number, comparing it with the hash will verify that the phone number is correct.

though the subspace is not tied to a real-world identity. For example, you can use SSKs to send out a newsletter, to publish a Web site, or (operated in reverse) to receive e-mail.⁹⁷

Freenet was designed from the beginning under the assumption of hostile attack from both inside and out. Therefore, it intentionally makes it difficult for nodes to direct data toward themselves and keeps its routing topology dynamic and concealed. Freenet also encourages publishers to encrypt all data before insertion so that node operators can remain entirely ignorant of the contents of their nodes.⁹⁸ The system thus created offers broadcasting of information to a limitless audience, but has been purposefully designed so that the author is unidentifiable, even by their “publishers,” the node operators.

Another example is Tor, an onion-routing network that protects users from packet analysis. When data packets travel through the internet, their route is embedded with them; onion-routing “layers” the routing information like the skin of an onion, and each node peels away a layer. Thus, the only nodes that can even potentially read the plaintext are the sender, the recipient, and the exit node; with end-to-end encryption, even the exit node cannot read the data. Onion routing works like a game of pass-the-parcel: none of the intermediaries know what is inside the parcel. Tor builds on this by implementing perfect forward secrecy.⁹⁹ If the technical details of this process are thought complex, perhaps it will suffice to say that the PRISM program of the NSA has made repeated attempts to attack the Tor network and has failed to penetrate it.¹⁰⁰

⁹⁷ Clarke et al, “Protecting Free Expression Online with Freenet,” 42.

⁹⁸ Ibid. 43-45.

⁹⁹ The Tor Project, “Tor: Overview,” retrieved from <https://www.torproject.org/about/overview.html.en> on March 12, 2013.

¹⁰⁰ James Ball, Bruce Schneier, Glenn Greenwald, “NSA and GCHQ target Tor network that protects anonymity of web users,” *The Guardian*, October 4, 2013. Retrieved from <http://www.theguardian.com/world/2013/oct/04/nsa-gchq-attack-tor-network-encryption> on October 4, 2013.

The third well-known example is I2P, which is another anonymizing network, but one that does not seek to hide the originator *or* the recipient, but both, including from each other. Two parties can communicate using the I2P protocol, but neither can find out who the other is, nor can any intermediary or interceptor learn their identities.¹⁰¹ Unlike Tor, nodes all act as relays. I2P is, at the time of writing, less well-known than Tor and Freenet; all three are in constant development.

These internet technologies, along with similar cousins and new technologies as yet undeveloped, allow us to come closer to what Morio and Buchholz term “true anonymity.” Morio and Buchholz’ model separates anonymity into three levels: visual anonymity, dissociation of real and online identities, and lack of identifiability. Visual anonymity is as it sounds: nobody knows what the speaker looks like. An e-mail does not generally contain a photograph of the sender, a website need not contain a picture of its author, and a photograph is not a requirement for an account with most social networking sites.¹⁰² It would be the equivalent of wearing a mask while meeting in person. The second level, the dissociation of real and online identities, derives from the fact that in most online venues, the “username” does not have to be of any relation to that user’s “real” name.¹⁰³ One can call oneself any name at all, and use someone else’s photograph – or no photograph at all. Both of these forms, however, offer ties back to the original individual which will render them identifiable with enough effort and resources.

¹⁰¹ I should add, as the creators of all of these networks have, that anonymity is not a Boolean question but a qualitative one – not anonymous *per se*, but *more anonymous*, or *anonymous enough*.

¹⁰² Even when likenesses are required, it is almost always possible to pick whatever likeness the user prefers. Deceptively using a picture of an attractive but relatively unknown celebrity for one’s online dating profile has become a staple of stand-up comedy – and the bane of internet match-making websites.

¹⁰³ Hiroaki Morio & Christopher Buchholz, “How Anonymous Are You Online? Examining Online Social Behaviours From a Cross-Cultural Perspective,” *AI & Soc* 23 (2009): 297-299.

The third kind of anonymity is a lack of identifiability, and this one most approaches what we might call “true anonymity” – the total separation and dissociation of the public persona from the private and actual identity. It simply means that an individual’s behaviours become indistinguishable from the behaviours of others, and that they disappear into the crowd. If a specific act is committed by one person in a population, then with a total lack of identifiability, there is no way to identify the actor from the other non-acting members of the population. For example, if I were to rob you while enjoying a lack of identifiability, you would not be able to tell me apart from all the others who have *not* robbed you. If I picked your pocket in a crowded marketplace, you might realize the theft has occurred, turn around, and see only a sea of people, any one of whom (or none of whom) might be the thief. A website is not naturally occurring, and has to be created by somebody, but with the use of anonymizing technology, the creator is indistinguishable from any other member of society. For example, this has been most useful to pro-democracy activists in China, or in the wave of protest that has been dubbed the “Arab Spring.”

Apart from the hopeful panegyric for the avenues of dissent and revolt thus created for oppressed peoples, academic discussion of internet anonymity also, perhaps even primarily, tends towards a lament for the new waves of crime and anti-social behaviour that it has made possible. The first two measures of anonymity are fairly superficial, although they do have an effect on behaviour. Several works of social psychology have found that anonymity and group membership tend to increase antisocial behaviour and to decrease helping behaviour, even when the individuating event is only momentary and the helping task is very simple, and to increase the instance of unethical

behaviour in pursuit of material self-interest.¹⁰⁴ Anyone who has spent any significant time online interacting with other “netizens” can usually offer anecdotal evidence of their increased exposure to prejudice, hatred, hostility, anti-social or deviant behaviour online when compared to their experiences in the real world which confirms these scientifically-gathered data. David Davenport suggests that social justice depends upon accountability, in quite a Kantian manner. Anonymous communication risks the incremental breakdown of society. Davenport observes that simpler societies with less anonymity and privacy tend to suffer less crime, social unrest, and protest; if true, we would be foolish to believe that a society which embraced anonymity and relied solely on goodwill and the conscience of the citizenry could deliver justice.¹⁰⁵ The social psychology studies above would seem to put a scientific heft behind his words.

Kant might say the reason that the two narratives of liberation and deviancy dominate the discourse is because they are actually two facets of the same narrative. To conspire against a tyrant is wrong in the greatest degree, and certainly no less so than the fraud, theft or vandalism that constitute the bulk of cyber-crime. Both fail his maxims. Crimes such as theft or fraud, whether committed online or not, cannot be made universal since to do so violates Kant’s categorical imperative: “act only on that maxim which you can at the same time will to be a universal law.” Society would fall apart if everybody set

¹⁰⁴ Eugene W. Mathes & Thomas A. Guest, "Anonymity and Group Antisocial Behavior," *The Journal of Social Psychology* 100 (1976): 257; Henry Solomon, Linda Zener Solomon, Maria M. Arnone, Bonnie J. Maur, Rosina M. Reda, Esther O. Roth, "Anonymity and Helping," *The Journal of Social Psychology* 113 (1981): 37, 42; Tatsuya Nogami, "Reexamination of the association between anonymity and self-interested unethical behaviour in adults." *The Psychological Record* 59 (2009): 269.

¹⁰⁵ David Davenport, "Anonymity on the Internet: Why the Price May Be Too High." *Communications of the ACM* 45, no. 4 (Apr 2002): 33.

out to defraud and rob each other, and the online world would fall apart if it were inhabited only by hackers and trolls.¹⁰⁶

Rebellion fails the maxim of publicity; a rebel cannot make his sentiment public, although the tyrant can. In the Kantian interpretation, these two narratives of cyber-anonymity are conflated to one: breach of duty. Jean Maynard illustrates it thus: democracy is incompatible with technocracy, because the technocrat prefers secrecy and concealed action to open debate. The technocracy creates a secrecy all of its own, since computers are unfathomable to the layperson by their very nature. For example, if shown the source code for a computerized voting system, anyone without a strong knowledge of programming and of the particular programming language in which it was written could not say if that system would accurately record ballots. In a more everyday scenario, if Microsoft, Facebook or Google say that they will not gather, sell and abuse our personal information, we have only their word for it since we lack the ability to inspect their software for ourselves.¹⁰⁷ 2013 revelations concerning the PRISM program offered evidence that these companies *were* illicitly gathering personal information and abusing the trust of their customers, but this did not come from an examination of the code, but from an insider-turned-whistleblower.

Jodi Dean echoes this suspicion of the technocrat. The hackers, writes Dean, wanted to overthrow the technocratic elite (in reference to the famous history of Apple,

¹⁰⁶ A hacker, in the original sense, is a person who attempts to break through security measures as a test of skill and for “bragging rights.” It is not malicious in intent; the hacker community objects when journalists refer to people who break security for malicious purposes as “hackers” – within their community, the malicious subset are known as “crackers.” A “troll,” in internet parlance, joins an online conversation for the sole purpose of arousing anger or outrage in other participants, usually by means of inflammatory and outrageous statements. The term comes from the fishing technique of *trolling*, in which a baited line is slowly towed through the water.

¹⁰⁷ Jean Maynard, *Technocracy*, trans. Paul Barnes (New York, NY: Free Press: 1969), 59, 295-296.

Microsoft and IBM), but subsequently became elites themselves. Steve Wozniak and the late Steve Jobs, the co-founders of Apple Computer, began their careers building “blue boxes” in the 1960s. The blue box would emulate the tones of a telephone operator’s console, enabling the user to place free telephone calls.¹⁰⁸ Jobs rose from these beginnings in the illegal or quasi-legal technology counter-culture to become one of the best-known and wealthiest CEOs in the world, and until his death in 2011 led a company (barring his hiatus between 1985 and 1997) that has been in the Fortune 500 for almost thirty years. Bill Gates and Paul Allen’s firm, Microsoft, was initially run out of a motel room in Albuquerque, funded by advances on software he had not yet produced. Gates and Allen gambled that software was where the money was, which nobody at the time believed (established firms like IBM or Hewlett-Packard focused almost exclusively on hardware) – and he was right. Microsoft is now one of the most profitable firms in existence and Gates has been the wealthiest person in the world for fifteen of the last twenty years. The upstarts in Microsoft and Apple usurped the established elites of IBM, DEC, or Hewlett-Packard; the former, now established elites themselves, find themselves challenged by the upstarts at Google and Facebook.

This story is a commercial mirroring of the struggle of the secretive subversives against the tyrant. The corporate giant – IBM – was judged to be autocratic by the hacker culture; it was overthrown by Apple and Microsoft using the tools of technology and secrecy.¹⁰⁹ When the commercial and the political overlap so much, and where money frequently (if not invariably) equates to power, this is not that much less of a usurpation of power than any conspiracy against Sulla might have been. Apple and Microsoft would

¹⁰⁸ The practice of illicitly exploring telecommunications systems, especially with a view to circumventing charges and tolls, is known as “phreaking.”

¹⁰⁹ Dean, *Publicity’s Secret*, 82-86, 98-99.

fail Kant's maxim; they did not want to see their goal of overthrowing and replacing the giant to be made universal since, after they had replaced IBM as the giants themselves, they took every effort to stop the same thing happening to them and to kick the ladder away for any upstart firm that might follow.

I offer these examples of discourses on technology which dominate academia and the popular media, but my analysis concerns another discourse, and one that I feel should not be ignored. The internet's collection of technologies offers secrecy, and it offers privacy, but most importantly, it offers anonymity. Secrecy and privacy necessarily involve a very restrictive audience: secrecy implies actions and information to which only a very few are privy, and privacy reduces the audience and the witnesses to none. The difference with anonymity is that it allows for a secret identity while offering information to a potentially unlimited audience. The bulk of academic concerns over internet technologies such as these are either over the potential for criminal or deviant activity, or over breaches of privacy by governments, commercial enterprises, or criminals. Recent events in the Arab Spring and in the organization of mass protests in Europe should alter the discourse towards a closer scrutiny of anonymity. We have seen activists use anonymizing software and services to send out public messages and appeals while remaining unidentifiable to state security forces. Activists in Libya used public online dating services to exchange messages and arrange meetings, for example.¹¹⁰ Even during a media blackout, Facebook and Twitter have been used to disseminate information.¹¹¹

¹¹⁰ Jeffrey Kofman & Ki Mae Heussner, "Libya's 'Love Revolution': Muslim Dating Site Seeds Protest," *ABC News*, 2011-02-24, <http://abcnews.go.com/Technology/muslim-dating-site-madawi-seeds-libyan-revolution/story?id=12981938&page=1> (accessed 2011-04-03).

¹¹¹ Channel 4 News, "Arab Revolt: Social Media and the People's Revolution," Channel 4, 2011-02-25, <http://www.channel4.com/news/arab-revolt-social-media-and-the-peoples-revolution> (accessed 2011-04-03).

The ability to do this for a virtually unlimited audience while still remaining anonymous, especially when internet media are used as sources for more traditional media, is probably unprecedented. The combination of publicity with anonymity offers a serious challenge to the traditional Kantian interpretation of the tyrant against the conspirator.

Kant believed there was a need for the careful inculcation of cosmopolitan values by the state, which would, he hoped, grow and become dominant, and so change the laws and the very modes of thought of the citizenry.¹¹² The cosmopolitan state would have to drag its citizens along behind it. The legal framework of cosmopolitanism will have to be constructed first, to be fleshed out by popular acceptance in time. For example, the rights of African-Americans in the United States were mostly won in the decisions of the courts, such as *Brown v. Board of Education* in 1954, which desegregated public schools. The first African-American children to attend formerly white schools were greeted by such public outcry and even violence that troops were necessary to enforce their newly-won rights. Although the civil rights movement has been advanced by the courts and, to some extent, the executive branch, the change of public opinion has since been so great that it is as unthinkable now for a public official to openly hold profoundly racist views as it would have been for them to openly hold racially egalitarian views sixty years ago.¹¹³

Kant used the principle of publicity to justify the tyrant's repression of rebellion, and to delegitimize rebellions against tyrants. The new technologies of the internet, particularly in the opportunities they offer for anonymity, subvert his principle. Rebels against a tyrant are wrong to the highest degree because they cannot proclaim their

¹¹² Immanuel Kant, "Idea for a Universal History with a Cosmopolitan Purpose," seventh proposition.

¹¹³ These advances have occurred in fits and starts, but Kant predicted that cosmopolitanism would advance in fits and starts, with many setbacks.

conspiracy publicly, yet anonymizing technology offers the possibility of doing precisely that. Identifiability is not the key to Kant's principle, so the lack of identifiability is not a factor, even though Kant may have conflated identifiability and publicity to a certain extent. Perhaps Kant was not able to anticipate a manner in which information could be made completely public while the informer remained completely anonymous. In his time, it was possible to separate identifiability and publicity to a limited extent, but the two concepts remained "sticky" inasmuch as there would almost always remain something or someone that could tie the informer back to his information when it was made public.

However, internet anonymizing technology permanently separates the two concepts. The Pirate Bay, a search engine for pirated media shared using the peer-to-peer BitTorrent protocol, boasts of a server system under which the Pirate Bay staff does not know where its servers are, and the owners of those servers do not know that they are hosting the Pirate Bay.¹¹⁴ This is why, despite lawsuits, criminal prosecutions, jail sentences and the combined efforts of multiple governments, the Pirate Bay continues to operate with impunity: there is neither a particular individual who can locate it nor an individual with the power to shut it down, and those individuals who might collectively have the power to do either are unaware that they are part of such a group, and have no way of identifying any other members of that group. Attempts to shut the service down by revoking domain hosting in 2013 were successful for an hour or two at most. The hosts of the very public website of the Pirate Bay, open to anyone with an internet connection, are completely unidentifiable. They cannot even identify themselves, as they

¹¹⁴ David Kravets, "Pirate Bay Says it Can't be Sunk, Servers Scattered Worldwide," Wired.com, 2008-02-01, <http://www.wired.com/threatlevel/2008/02/the-pirate-bay/> (accessed 2011-04-05).

do not know that they are the hosts. Despite the publicity, there is nothing left of identifiability.

Identifiability and publicity have finally been pulled apart, but Kant, whether mistakenly or not, has tied his maxim to publicity. If rebels against a tyrant can make their intent public, then they do not fail this maxim, and thus cannot be judged to be in an ethically inferior position. The fear of being identified and meeting a grisly end is effectively removed when identifiability is destroyed: the dissident is truly a face in the crowd and despite his dissidence, cannot be distinguished from any other member of the populace.

The simplest (and the weakest) defence of Kant's publicity principle that we can mount is to re-bundle publicity with identifiability, to simply say that true publicity requires identifiability. If one does not reveal one's identity along with one's message, one is not being truly public, but at least partially secretive. The message is made public, but the identity of the messenger is not. Because of this, we can say that messages and dissent delivered publicly while the identity of the sender is kept secret are not truly public, and so they still fail the Kantian maxim. When granted this indulgence, the principle remains intact even at the height of the information age; conspiracies against tyrants are still wrong in the highest degree, and conspirators deserve whatever fate the tyrant visits upon them. Such an argument is overly simplistic, however, and not only reads meaning into the original text that does not seem to be there, but ignores the potential of the internet as a truly paradigm-shifting phenomenon, and as something that was possibly anticipated by Kant himself.

One such paradigm that might have been dramatically jolted by the advent of the internet is the definition of the public sphere itself. In her analysis of the salon, in its traditional form and in a new, virtual, cybernetic iteration, Dean opines that the public sphere is confined to the nation-state. She invokes the Habermasian idea of the salon and the public sphere as securing national identities, and that the nation-state sets its boundaries. The state also invariably forms the target of the political public sphere.¹¹⁵ Buchstein feels that the internet is not a new public sphere at all, and does not live up to the Habermasian ideal of a democratic public sphere.¹¹⁶ The internet, in short, is not thought herein to be a radical change from traditional perceptions of the public sphere, and is bounded by the traditional rules and borders of the public, such as the state, as much as the traditional public sphere has been.

Kant's cosmopolitanism transcends the state, however. His political concepts are international. He calls for a federation of democratic republics under the umbrella of international law, and his concept of hospitality relies upon international travel and exchange. His world is trans-national and international, one in which our horizons are no longer to be hemmed in by borders. Should the public sphere in this world not reflect that idea? The internet is certainly not a public sphere bounded by national borders. Internationalism is inherent to its very nature; information cares for borders about as much as do the winds or the birds. In this sense, if the traditional public sphere is a national sphere, then the internet is an altogether new kind of public sphere, and one supportive of Kantian cosmopolitanism.

¹¹⁵ Jodi Dean, "Cybersalons and Civil Society: Rethinking the Public Sphere in Transnational Technoculture," *Public Culture* 13, no. 2 (2001): 258.

¹¹⁶ Hubertus Buchstein, "Bytes that Bite: The Internet and Deliberative Democracy," *Constellations* 4, no. 2 (October 1997): 250-251.

Since the tyrannical state cannot hope to break the encryption of messages, cannot find information in databases that do not exist, and cannot recruit informants when nobody has any truly useful information, the only recourse it has is infiltration. The state must plant an agent or recruit an informant, and hope that this individual is then given the encryption keys that will reveal who the other dissidents are. Let us assume that the dissidents know who the other members of their group are (for it is entirely possible for a rebellion to be organized by people who have no idea of any other member's real-life identity, and that this group could be plotting in secrecy and anonymity not just from the public, but from each other). If the state has to infiltrate such a group, then it has now failed Kant's publicity maxim itself, for the act of infiltration depends on secrecy. The state would be defeated if it were publicly known that it was actively attempting to infiltrate dissident groups, and doubly so if the identities of the infiltrators were also revealed. Since Kant appealed only to this maxim as the final arbiter of the good, this would mean that the state was now committing an act that was wrong in the highest degree, and moreover, since the dissidents would be proclaiming their intent publicly, this would provoke a crisis of legitimacy. In the Kantian interpretation, the rebels would have a better claim to power than the state.

As if that was not clear enough, in *Perpetual Peace*, Kant lists the employ of spies by the state as one of the "diabolical arts" which are "intrinsically despicable" and which cannot even be employed in war.¹¹⁷ In the *Metaphysics of Morals*, he continues to argue against spying, and forbids a state to use its own subjects as spies – which it would certainly have to if it wished to infiltrate dissident groups – and to use spies, even foreign

¹¹⁷ Kant, *Perpetual Peace*, 1:6.

spies, to spread false reports.¹¹⁸ This is owed not only to the publicity maxim, but to Kant's other maxims that one ought not to do that which could not be universally applied, and with the demand that one treat other rational actors as ends in and of themselves, and not as means. Spying generally fails at least one of these two principles in addition to the publicity principle, while dissent against tyranny does not – the replacement of tyranny with republics could (and should) be universally applied, and to establish a republic or advocate the same is to grant freedom to others which only a republic can possibly provide, thus respecting the requirement to treat others as ends rather than as means.

One could argue that the advent of publicity with anonymity allows the flourishing of dissent that undermines the development of cosmopolitanism, safe not just from the state censor, but from the public, who may have reached a point of development where they would largely reject such dissent and perhaps vilify the dissenters. Thanks to the anonymity of the internet, there are numerous outlets for racist, misogynist, nationalist-chauvinist, or other prejudiced and exclusionary anti-cosmopolitan views, even in societies which have largely accepted most or all of these cosmopolitan norms. These generally work at the level of dissociation between real and online identities, rather than true lack of identifiability, but nevertheless, they have proliferated in a way that traditional media espousing such views could never have. It is difficult to imagine that the FCC or the CRTC would allow an overtly and unapologetically fascist radio station or TV channel, and yet there are dozens – if not hundreds – of fascist websites in the English language alone.¹¹⁹ The fact that the internet and anonymity permit, allow, and perhaps even encourage a counter-cosmopolitan discourse to flourish is a concern to a

¹¹⁸ Kant, *Metaphysics of Morals*, 8:437.

¹¹⁹ A Google search for “holocaust lies” yields over seven million results, most of which – at least in the first fifty – are websites devoted to anti-Semitism and fascist sympathizing, if not outright Nazism.

cosmopolitan agenda, particularly as Kant relied upon the capturing of the public mind and the creation of a hegemonic discourse in order for cosmopolitanism to flourish.

To the idea that the internet might undermine the cosmopolitan discourse, it may simply be said that the changes that the internet introduces are only superficial. The internet might allow the proliferation of anti-cosmopolitan discourses, but then, they might be allowed without the internet. Kant hoped that cosmopolitanism would become a matter of public acceptance through the gradual strengthening of its discourse, and the internet does not prevent this any more than it enables it. Put simply, in a cosmopolitan society, the extent of anti-cosmopolitan sentiment on the internet would probably be quite close to the extent of such sentiment in general. Fringe websites alone are not a concern because, in a cosmopolitan society, they would only have fringe appeal and little to no influence. If they *did* have substantial influence, it would mean that the society of whose popular discourse they were part must be substantially supportive of their views, in which case one would expect support in offline modes as well – radio stations, newspapers, or even political parties. Online anti-cosmopolitanism is not a concern for the cosmopolitan project.

Perhaps one reason why such anti-cosmopolitan views are aired online is because the anonymity of the internet also removes the shaming effect encountered in public discourse. To espouse a highly unpopular, risible, or offensive view in public is to invite ridicule or anger; anonymity shields the speaker from that effect and frees them from shame. For this reason, it might be argued that shame has a “purifying” effect on public discourse, for one feels compelled not to air viewpoints which are laughable or hateful, but this purification only works when public discourse is overwhelmingly cosmopolitan

and liberal to begin with. Exactly the same effect works, for instance, to discourage the airing of anti-homophobic views in the multitude of countries where homosexuality is held to be contemptible by a majority of the public, to drive religious minorities underground in profoundly theistic societies, or even to suppress academic freedom and scientific fact in societies where traditional views are held in greater esteem than is science or free thought. Public shaming may “purify” for those societies that have already ascended to a liberal, cosmopolitan state (and I use the term “ascend” in reference to Kantian teleology), but the same mechanism is an active hindrance to those still some way off from that state. Shame acts as a brake on the expression of unpopular ideas, but it would be a mistake to conflate popularity with rightness, whether moral or factual.

Moreover, when it comes to unpopular or anti-cosmopolitan views, the existence of websites or eBooks does not indicate the existence of an audience, particularly when building websites and publishing eBooks is so inexpensive (unless one desires a high degree of customization or branding, there is no reason to pay money to run a website, and this has been essentially true since the 1990s and the heyday of GeoCities, while the advent of the eBook has essentially removed all requirement for financial investment in publishing). These are the digital equivalents of the fringe-movement characters found on Speakers’ Corner, isolated and broadly unappealing, viewed largely as curiosities or amusements if the general public is even aware of their existence, and as such, threaten cosmopolitan ideals no more than the existence of Speakers’ Corner threatens parliamentary democracy. The spread of anti-cosmopolitan discourses through digital media would only be alarming if it attracted a significant audience, and if so large a slice of the general public were receptive to such ideas, it is almost certain that such discourses

would proliferate without the existence of the internet. Nationalist and anti-immigrant sentiments are becoming more popular in Europe still suffering from the effects of the 2008 economic crash, but the same was true of Europe when suffering from the effects of the 1929 economic crash, and the latter had no digital communications of any kind.

Intellectual freedom, in the Kantian view, is absolutely essential for the flourishing of public reason, and perhaps the proliferation of profoundly anti-cosmopolitan and illiberal websites and digital media are, in fact, indicative of the health of public discourse and the flourishing that digital media allows.¹²⁰ We should be more worried for the fate of liberalism if there were *not* a host of illiberal voices in public discourse. It is these dissenting voices that pressure us to engage in reason, in questioning and in critical thinking, not those of guardians.¹²¹ The existence of these dissenting voices, and the freedom with which they can be aired online, are not challenges to Kantian ideals but instead are supportive of it. The internet, through its low access barriers of cost and difficulty, and through its resistance to censorship, advances the ideal of intellectual and press freedom which Kant held in such absolutely high regard.¹²²

Perhaps it is true that the internet makes it possible to undermine cosmopolitan ideals, but Kant reminded us that progress towards the cosmopolitan ideal would be filled with setbacks. If the internet is not ideal, that does not mean it is not bringing us somewhat closer to cosmopolitanism. Chauvinistic nationalists and racists can flourish on the internet, but so too can relationships and friendships between people of many different nations and continents. We can become more exposed to other cultures and

¹²⁰ Kant, *Critique of Pure Reason* A738-39/B766-67.

¹²¹ Immanuel Kant, *An Answer to the Question: What is Enlightenment?* 8:35.

¹²² John Christian Laursen, "Kant, Freedom of the Press, and Book Piracy" in *Kant's Political Theory: Interpretations and Applications*, ed. Elizabeth Ellis (University Park, PA: The Pennsylvania State University Press, 2012), 233.

better disposed towards them without losing our own, and make contact with other societies by reaching out virtually (the virtual reach being less immediate and sensual than the physical, but almost infinitely easier). Virtual hospitality is easier than physical hospitality. Virtual travellers who search online for Japanese cuisine, Indian architecture, or Russian literature will be welcomed by a website that offers exactly what they seek.

Of course, it is relatively easy to build a website since modern software removes the need for knowledge of HTML code that was once required. Such tools have been growing in sophistication for years. One is not required to invite anyone into one's home or provide anything tangible for them on a website, but the construction of a freely-accessible website might be the ultimate act of hospitality: the expenditure of energy in the act of creating something that is to be offered to all, without question. The website is open to everyone by default, more open and infinitely more accessible than the foreign city, and the public who may access it is world-wide and unhindered by access barriers such as the cost of travel or the difficulty of navigation.

The internet also preserves the ideal of public reason, which Kant insisted must always be free even if the private use of reason might be narrowly restricted.¹²³ It provides forums, even anonymous ones, in which a person may address a public audience, explain their views and be heard, and in which others may debate with them. However, despite claims that the internet erases the line between public and private spaces, there is still a definite barrier between the public and the private, such as that which Kant describes in *What is Enlightenment?* He remarks that a man of learning may address the entire reading public, and that is a public use of reason, but a private use of

¹²³ Kant, "An Answer to the Question: What is Enlightenment?" in *Kant: Political Writings*, ed. Hans Reiss, trans. H.B. Nisbet (Cambridge: Cambridge University Press, 1991), 55.

reason – which may be curtailed – is that which a person may use in a particular civil post or office.¹²⁴ Consider social media, for example, which might be considered to blur or even unify these two realms. They do not. A person may use an online forum, anonymously, to address the entire public, and the anonymity preserves the ability and the right to do so without negative consequences. To bring one's private space online is to invite shame and criticism when misconduct is made public, however – consider the laments of those photographed in compromising situations, exposed on social media, and promptly fired or arrested. The internet did not enable some infringement on their freedom, despite what some of them might say, for this was a matter of private reason, i.e. their use of reason in a particular civil post or office when their conduct might be expected to reflect upon that office.¹²⁵ Internet anonymity preserves the right of public reason by divorcing the speaker from their words, removing not only the possibility of reward but also that of punishment, while still leaving untouched the necessary restrictions upon private reason that a republic must place upon officeholders when they choose to address the public identifiably.

The addition of anonymity to public discourse also makes such discourse conform more closely to Enlightenment ideals of what such discourse should look like. A criticism that the Enlightenment philosophers might level at the Aristotelian revivalists who believe that technology is harmful to the traditional model of public discourse, is that Aristotle himself was quite critical of that model. For example, he remarks that the

¹²⁴ Ibid.

¹²⁵ As was topical at the time of writing, Rob Ford, mayor of Toronto, discovered that it did not reflect well upon the mayoral office for videos and photographs of the mayor smoking crack cocaine. This was a matter of private reason, and his freedom could justly be curtailed – the same could not be said if he had anonymously advocated for drug legalization, but if he were anonymous, neither could he have been shamed or punished for it.

currents of public discourse are not generated by the public themselves, but by the way in which rhetoricians *manipulate* the public mood.¹²⁶ An orator can bring his audience into a frame of mind that disposes them to anger, for example, whether or not that is justified; Caesar's murderers were trying to rid the city of a tyrant and restore Republican rule (and although Kant might not have approved of the rebellion, he would probably have approved of the result¹²⁷), yet Mark Antony's oration at Caesar's funeral – at least, in Shakespeare's rendition – is a masterful play upon the emotions of the audience, whipping them into a fury against his political enemies.¹²⁸

It is possible to deceive with *logos* – if that is not to abuse the concept – by falsifying the truth. In short, if the cold facts do not support an argument, one fabricates a tissue of lies. Obscuring actual facts or making non-facts up and presenting them as fact is a very old trick, but the difference is that false and deceptive *logos* can be combated with *logos*. If one's interlocutor is inventing lies, then (theoretically) one should only need to present the truth in order to expose him as the liar he is. This is the basis of the court or of peer-review, amongst other things, which provide venues in which lies may be exposed. *Logos*, when used properly, however, serves the truth. It requires a sound, logical argument backed up by fact. *Ethos* and *pathos* are inherently manipulative, for they do not hinge on objective facts but on feelings and emotions.

It is for this reason that Enlightenment philosophy holds *ethos* and *pathos* in such disdain, and the internet can be used as a tool which eliminates or at least mitigates their effects. An anonymous speaker cannot rely upon his reputation or credibility, and his

¹²⁶ Aristotle, *Rhetoric*, II:1.

¹²⁷ Elizabeth Ellis, *Kant's Political Theory: Interpretations and Applications*, ed. Elizabeth Ellis (University Park, PA: The Pennsylvania State University Press, 2012), 12.

¹²⁸ William Shakespeare, *Julius Caesar*, Act 3, Scene 2.

displays of emotion or *pathos* must be limited to those forms which are digitally transmissible. The solution is not perfect, for the internet does not automatically reduce all arguments to the facts and logical structure alone, but it may be that they are greatly preferable to media in which such rhetoric is more feasible – such as television – or in direct meetings. Kant, like most Enlightenment philosophers, rejects *pathos*, which would seem to make the internet a better mode of communication according to Kantian ideals, and especially so when the speaker is anonymous and his appeals to *pathos* are necessarily extremely limited.

This is secondary to the consequences that anonymous and public communication have for the Kantian publicity principle, however. Not only does the possibility of anonymous and public dissent free the dissenter from the shackles of the publicity principle, but it then turns to place those shackles on the tyrant. The dissenter, armed with this technology, may speak publicly and make their goals widely known, while the tyrant must resort to spying in order to root them out. Spying, however, is separately and vehemently condemned. Kant is not a consequentialist, and the way in which Kantian principle may be recruited in defence of tyranny is most alarming to the consequentialists such as Bentham, who also argue for publicity, but for the consequences alone. If the outcome of publicity were to be suffering and misery, then Bentham would argue against it, for one must always seek to minimize suffering, but this is not the case with Kant. Anonymous, public communications resolve this problem. Now, we may recruit the publicity principle for the overthrow of tyranny and the promotion of the republic and of cosmopolitanism.

The question remains: which is the preferable mode of thought, that of Aristotelian *phronesis*, or the Kantian perspective of rationality and republicanism? This is no simple matter to settle, and I would not presume to do so here. More able thinkers than I have come down on both sides of the matter. There is much that is admirable in Aristotle, with its praise of individual virtue and the seeming authenticity of the human experience that is offered by embracing contemplation and feeling. However, Aristotle does not simply mean that we should embrace our natural humanity in the innate sense; human nature is full of things to be overcome. It is no accident that, in Aristotelian philosophy, *phronesis* is only available to he who cultivates it through a lifetime of contemplation, magnanimity, and the habituation of sound judgement. If we are to discard so much of our human nature, then, as the Enlightenment philosophers advocate, why not also discard the emotionalism and irrationality which have served to hold us back for so many millennia in favour of reason and science, which have done more than anything else to raise our awareness and answer our questions about the world?

The Aristotelian Golden Mean entreats us to walk a middle path between extremes of feeling and action, but if the extremes of emotion are undesirable, and only the moderate and justifiable emotions are judged fit, then this raises the question of whether emotion is desirable at all. For instance, Aristotle believes that justifiable anger is righteous, but to be justifiable requires that something not be intrinsically just, and perhaps it is this external justification which is valid, and not the anger. For instance, if our state is invaded and our anger causes us to rise up and defend it, then that which justifies the anger – the invasion – is the cause for defence, and not the anger itself; the emotion is superfluous.

Again, I return to the idea that rhetoric other than *logos* is, or can easily be, deceptive. This is a weakness of discourse that even Aristotle had to concede, and while *ethos* and *pathos* are inherently relative and without objective benchmarks to measure them against, *logos* has the rules of logic and the facts of the world to be judged by, and *logos* that does not measure up to either can be dismissed. Perhaps we cannot eradicate *ethos* and *pathos* from our discourse entirely, but perhaps the Enlightenment philosophers, including Kant, are right to believe that we should strive to abandon them as much as we can and resort to pure *logos* wherever possible. If there is a technology or a medium for discussion that downplays or even eliminates *ethos* and *pathos*, then we ought to embrace it.

Finally, I reject the Aristotelian vision of virtue, public space, public discourse, and politics because I find that it is too elitist, chauvinist, and exclusionary. Aristotle freely admits that virtue and *phronesis* are not available to all but only to a privileged few, possessed of good breeding, money, friends, and leisure, sound of mind and body. There is much in the works of the Classical philosophers that rejects the idea of individual autonomy – for example, in dealing with slaves or women who must be governed for their own good (justly and wisely, to be sure, but the implication is that these people are incapable of governing themselves justly and wisely, while the elites are capable of governing not just themselves but others), or the “lower” social orders who must be deceived or manipulated to preserve the state and social order. This chauvinism is arbitrary, and logically indefensible. Good breeding and inherited wealth are the result of chance, and nothing more, as are gender, ethnicity, and national origin. If the Greeks believe they are the superior culture, and so do the Persians, there is nothing to tell either

which viewpoint is correct: one may point to culture and learning, the other to military power, yet the measurement of either is subjective and arbitrary, let alone the weighting of one against the other. There is nothing to say that I am a better person than you are; if you are more compassionate, perhaps I am more acquisitive, and not only can we not say whether acquisitiveness or compassion is the greater virtue, we cannot even say whether they are virtues at all.

Kant does not have an alternative system to settle the question of which people are better, and which are destined to rule, but instead avoids the problem altogether. His code of human rights demands that we treat others as ends in and of themselves, not as means, and this is based on an axiomatic principle. If we cannot agree upon who is better, then the only acceptable position is that we should be equal. I might not concede that you are better than I am, but I would never concede that I am worse and less deserving. Further, in the absence of consensus on what constitutes the good life and what constitutes virtue, the only defensible position is the compromise wherein the liberty of all is equally respected. Kantian liberty allows each person to act as they will until it affects others – my rights end where yours begin.

For these reasons, I prefer the Kantian vision to that of the ancients. As I have noted, there is an ugly and unpleasant side to Classical thought, and to act-utilitarianism, but I find that Kant largely avoids the problems of both. The Kantian paradigm seems not only more logically sound, but more ethical, more *human*; it seems more right to treat my fellow human beings as autonomous equals whose values, goals, and drives deserve no less intrinsic respect than my own rather than to rank humanity in a hierarchy or to treat other individuals as factors in some calculus of utilitarian ethics. However, the Kantian

perspective has itself come under scrutiny and criticism, not least because of its great influence as a cornerstone of modern liberalism, and I wish to address some of these critiques.

Part III: Critiques

The critiques offered in this chapter are distinct from the contrary Classical paradigm offered in the first chapter. All of them are modern and post-Kantian; some may owe an intellectual heritage to the ancients but all are sufficiently varied and independently developed to warrant an individual examination. They have been influential either academically, popularly, or both, but despite their influence I feel that they cannot successfully revoke the Kantian proposals of public space, discourse, or liberalism, and they do not negate the potentially transformative qualities of internet communication.

The first post-Kantian objection concerns the relationship between technology and agency, and although this has been a concern since the classical period, new perspectives have been offered since the scientific revolution. Is technology a tool which we can use as we see fit, or is it an entity that changes our worldview and our motivations – can we exercise agency over technology? This argument is seen in the work of Heidegger and Ellul, but also has gained popularity in non-academic circles, for example, the common contention that modern technologies such as social networking sites and smartphones are making us antisocial. Heidegger also proposes that the scientific worldview is necessarily limited, and criticizes the Enlightenment thinkers – including Kant – for their supposed turn to science, reason and *logos* as their exclusive tools for

looking at the world. By committing ourselves to a rational-scientific mindset, we deny ourselves a full range of answers about the nature of the universe and of ourselves. Heidegger also believes that this mindset encourages us to think of the natural world as raw materials, “standing-reserve” as he puts it, to be exploited; in so doing we cut ourselves off from natural beauty, for example. Perhaps the internet has also developed in such a way. Steve Wozniak, among others, laments the manner in which the discursive spaces of the internet were changed from free and open spaces into ones strictly controlled and monopolized by gatekeepers. I wish to establish whether this is true or inevitable.

On the subject of the scientific mindset, Jacques Ellul argues that the changes it produces in our worldview are all-pervasive and extremely difficult, if not impossible, to free ourselves from. *Technique*, as he terms it, increasingly comes to dominate our society and increasingly curtails our choice and agency. If this is the case, then high technology such as the internet and technological means of communication would surely exacerbate this problem.

Hannah Arendt, as discussed earlier, may owe more to the Greeks and to Aristotle than the other critics discussed here; her contention is that intimacy is required for effective public discourse – we must see each other face-to-face in order to conduct politics in a meaningful way. The dividing line between public and private space is important, yet the internet seems to be blurring it more than it ever has been before, and its technologies allow communication without intimacy, geographical proximity, or even shared culture and language. From Arendt’s perspective, this would make internet communication most undesirable for political discourse.

Finally, I will examine an allegation of Mark Kingwell's which is perhaps the most aesthetic of these critiques, namely, that the internet promotes incivility and disrespectful, ignorant discourse which is not conducive to good politics or to rational, meaningful and productive discussion. Again, this is an argument which seems to have captured much of the popular opinion concerning the internet. However, I remain unconvinced that this is necessarily true; the internet may not be the game-changer that many think it to be in this respect, and in any case, such arguments smack of the Classical elitism that Enlightenment philosophy has often sought to do away with. I shall attempt to address all of these critiques in turn.

The Kantian understanding of technology is social-constructivist, seeing technology not as something that *shapes* human action and experience, but instead as something that *is shaped by* human action and experience. In this understanding, technology is therefore merely a set of tools or techniques developed to solve a human problem or suit a human whim, without agency or influence of its own. However, the most common criticism of technology and the technological mindset denies that technology is free of agency, and proposes instead that technology is capable of forming and altering human whims and desires, shapes the human experience and, at its worst, robs us of the power to shape our own destinies, detracts from the authenticity of the human experience, and worsens (or even creates) self-destructive tendencies in the human species.

This view is often enunciated in a dim form in popular newspaper and magazine articles or on "exposé" television, and, somewhat ironically, on blogs, and is usually concerned with modern social problems such as the addictiveness of videogames, internet

chat rooms, and social networking sites, or our willingness to hand personal information over to technological gatekeepers, or our desire for more gadgetry and better standards of living even at the expense of social justice or environmental preservation. Regular readers of popular media will be familiar with such debates. Those who espouse this view ask rhetorical questions such as what computer-mediated communication (CMC) is doing to social interaction, what is to be done about videogame addiction, and how it is that we came to be a society blindly absorbed in the vistas of our smartphones, seemingly unable to look up at our physical neighbours.

Such critiques merely scratch at the surface of the philosophical schema upon which these often-rickety rhetorical superstructures are built. That of Heidegger is particularly influential, and worth examining for its persuasiveness and rigour. There are many truths in the world, Heidegger believes, which are revealed in different ways to different people. What is true for me is not necessarily true for you, but both of our perceptions are true nonetheless. Art, for example, opens a window on to the world of the artist's creation, but the artist herself is inconsequential to the work since art is a way of creating and revealing truth, and truth is what is revealed – since our *perception* reveals truth, artistic intent does not, and art can reveal different truth to each person. Truth is that which is perceived, not intended, so great art offers new truths and new ways to view them – often in ways that the artist never intended.¹²⁹ Science, however, does not create any new truths or open new vistas to understand them, but only explores a realm of truth that has already been opened.¹³⁰ Art can create, but science may only explore.

¹²⁹ Martin Heidegger, "The Origin of the Work of Art," in *Martin Heidegger: Basic Writings* (New York: HarperCollins, 2008), 166-174.

¹³⁰ *Ibid.*, 187.

This, alone, would not necessarily be so terrible. Heidegger seems to admire the ability of artists to create new ways to look at the world, to create new truths, and new ways to approach truth. The problem with the scientific mindset, unlike that of the artist or the philosopher, is its conviction that the technical-scientific worldview is the *only* worldview, and the *only* truth. This chauvinism is a limit to science, but the scientific also attempt to stunt all other modes of approaching truth in the same way.¹³¹ The scientific mind can only apprehend things about which it already has an understanding, and can only ask the questions that it brings with it. Heidegger offers the example of “three oranges;” a concept which only makes sense if the concept of “three” is already known and understood.¹³² Science does not bother with contemplation of the nature of “three” but assumes it, and thus is at least partially limited to preconceived ideas in the way it develops our understanding.

“Three oranges” might seem to be a puerile example, but one can extrapolate from it to a general critique of a scientific understanding. The search for evidence of the Higgs boson’s existence does not deal, and will never deal, with the question of what existence is, what it means to exist, and what it means *not* to exist. It is not that science is incapable of revealing truth (such as the existence of the Higgs boson), but that it can only reveal a limited set of truths (again, such as *only* the existence of the Higgs boson), and that science brings with it a fairly rigid metaphysical framework which shapes the answers we can receive from it. Science is essentially limited to the numerical because it never questions the numerical and assumes the truth of the numerical – not to say that it

¹³¹ Martin Heidegger, “Modern Science, Metaphysics, and Mathematics,” in *Martin Heidegger: Basic Writings* (New York: HarperCollins, 2008), 273.

¹³² *Ibid.*, 276.

is *not* true, but, according to Heidegger, it is not the *only* truth, even though the scientific mindset believes that it is.

Art, on the other hand, is capable of embracing the numerical, but also of abandoning it; science only has the former quality. The Fibonacci sequence is mathematically expressed as $F_n = F_{n-1} + F_{n-2}$, with seed values of $F_0 = 0$, $F_1 = 1$, but thus written, it is coldly numerical and mathematical. This formula, however, describes the patterns in a fern or the seed head of a sunflower. A logarithmic spiral is written as $r = ae^{b\theta}$, but it is the shape of a nautilus shell. The Mandelbrot or Julia sets are merely mathematical sets of points, but the images they generate can be found, as with the other examples given here, quite beautiful. One may say, therefore, that while the scientific mindset is numerical, in the Heideggerian sense, the numerical is not necessarily scientific and may give rise to art and beauty, with which science does not deal.

Secondly, the scientific is the fundamental presupposition of the knowledge of things, that all things are knowable, that “nothing” as a concept is not worth bothering with, and that knowledge must be constrained to quantifiable facts alone – essentially, that knowledge of noumena is impossible, as exemplified by science’s lack of concern or interest for nonexistence and nonbeing.¹³³ As noted above, the search for the existence of a particle or a planet does not deal with the nature of existence, or that of nonexistence. To Heidegger, again, it must be stressed that this is a sin of omission, inasmuch as some truth and knowledge can be arrived at through this manner, but it is a limited range of truth and knowledge since some questions are never asked, and the scientific worldview discourages one from asking them.

¹³³ Ibid., 278; Martin Heidegger, “What is Metaphysics?” in *Martin Heidegger: Basic Writings* (New York: HarperCollins, 2008), 96.

The technological mindset, then, is one which is fixed in a particular pattern and not only fails to consider other ways of viewing the world, but often cannot even acknowledge that they exist. The problem is not the technological, mathematical way of viewing the world *per se*, for it is revealing of a certain truth, but that those who embrace it become so very closed to other ways of viewing the world. For example, Heidegger offers the example of a forest, or a river; the technician is unable to appreciate the natural beauty of this geographical feature but sees it as a resource of harvestable lumber or hydroelectric power which can be harnessed and controlled. This is called the *standing-reserve*, the tendency to view everything as a resource pool for technological exploitation. The world cannot be left alone but must be harnessed and yoked to produce more, faster, and better. Animals must be selectively bred so their offspring will yield more meat, milk or eggs, crops modified and cross-pollinated to give more bushels per acre, industrial production must use less labour, incur fewer operating costs, and obtain greater profitability per unit.

Nobody living in the modern, Western, industrialized world would read this and find no truth in it (and nor would most who live on other parts of the planet, surely), for the cold drive towards efficiency surrounds us in late-capitalist society. The attitude is even perceptible, as Heidegger remarks, towards things which have not yet even come into human utilization – witness the treatment of “proven” and “unproven” oil reserves, for instance, which are included in economic calculations and whose size and existence is the subject of market speculation even though they remain deep underground and their precise extent remains unknown, or the burgeoning markets in commodity futures, quantifying and marketing goods as yet unproduced.

We have identified the three points of this triad: science, technology, and capitalism. Technology is almost certainly the most “basic” of these three and the one most innate to humanity. The use of tools is a technology, an artifice of some kind used in the solution of some problem, as are the techniques of using them, or even the techniques of human hands used upon nature without the mediation of tools. Tool use is characteristic of our distant ancestors; crafted tools have been found with the remains of *Homo habilis* and *Australopithecus*. For example, the site OGS-7, excavated in Ethiopia in 2000, dates back 2.58 million years and contains both pre-human remains and deliberately-created tools.¹³⁴ More recently (relatively speaking), we might consider the agricultural revolution which began about 11,000 years ago, involving selective breeding and crop manipulation as the accidental selection of differing attributes in crops became deliberately sought and engineered by prehistoric farmers. Maize, for example, is not natural at all, but is a distant descendant from the teosinte plant (to which, it should be noted, it bears very little resemblance at all), first domesticated in central Mexico and later to become a staple food for the Aztecs, the Maya, the Incas, and other pre-Columbian civilizations.¹³⁵

Popularly, crop manipulation is associated with genetic modification of crops, scientific horticulture, Monsanto and Roundup-Ready. However, humans have been modifying crops for almost four times as long as they have been writing. Technology – the skills, techniques and artifacts used to manipulate nature to human advantage – is older than humanity itself, having been established long before *Homo sapiens* arrived on the prehistoric scene. Technology, as *techne*, was a problem the Greeks dealt with;

¹³⁴ Dietrich Stout, Sileshi Semaw, Michael J. Rogers, Dominique Cauche, “Technological variation in the earliest Oldowan from Gona, Afar, Ethiopia,” in *Journal of Human Evolution* 58 (2010), 477.

¹³⁵ Tom Standage, *An Edible History of Humanity* (New York: Walker, 2009), 4, 7-8.

certainly in the Western philosophical tradition, they were the first to address technology as a potential problem. It is a mistake, therefore, to think of technology as something modern, or something that is not innate to humanity. If technology predates science, and even predates humanity, causality demands that science cannot have given rise to technology. Further, if technology has been a universal aspect of human existence as long as humans have existed, this strongly suggests that technology is as innate (or, if anything, even more innate) to the human experience as speech or politics.

As I have noted before, the sea change in technology comes about as the result of the scientific revolution and the introduction of the scientific method to our technological development – the change from *techne* to *technology*, as we might call it. Some, like Fukuyama or possibly Heidegger, view modern technology is uniquely problematic, but this is not borne out. We have used technology, in the sense of artifacts and techniques, for millions of years; all that science has done is to make their development easier and faster, and to raise the limits of what they can achieve. The scientific revolution was the accelerator, but not the creator, of technological change, as the horse, the railway, and the aircraft made human transport easier and faster, but humans had moved from place to place long before any of them were created. The truly revolutionary moment, when the technological was first brought into being, was surely that point at which one of our hominid ancestors first extended his own arm with a stick or a bone.¹³⁶ If there was a *fundamental* change, why would the ancients have dwelt on the problems of technology in much the same way that we do? If the technological mindset and worldly science or material goods are newly corrupting, why would Augustine have railed against them? There is evidence to suggest that the scientific revolution accelerated the pace of

¹³⁶ Not for nothing did Stanley Kubrick and Arthur C. Clarke choose this moment as “The Dawn of Man.”

technological development, and that it exacerbated the problems of technology at the same time as it heightened our understanding and our craft, but it did not create them.

Heidegger does not identify technology but science as problematic, which is in its infancy next to the prehistoric phenomenon of technology. The first tentative steps of science may be very old, such as Eratosthenes' aforementioned experimentation with gnomons so as to establish the circumference of the Earth, but what Heidegger deals with is modern science, originating with the scientific revolution, midwived by the Renaissance. The scientific method is the origin of Heidegger's critique, since the beginning of all scientific inquiry is the framing of the research question, which necessarily limits the possible answers in Heidegger's estimation. There can be many truths to answer the question of what makes a good life, but only one of water's boiling point. This is even clearer when science is contrasted with contemplative or meditative approaches to truth, which perhaps take a more passive approach to Heideggerian revelation than science, which pre-defines the nature of the revelation.

Science accompanies empiricism and the numerical, but also accompanies a departure from *techné*, which is concerned with the practical and with building, making, or working, into something more resembling *episteme* – a search for knowledge itself in the abstract. The ancients might have studied the heavens in order to produce a calendar which could guide the planting and harvesting of those crops (the ancient Egyptians having produced a calendar of 365 days, with 12 months of 30 days, particularly useful for predicting the annual submersion of the Nile floodplain). Modern astronomy, however, has a sizeable branch devoted to finding exoplanets, for instance, or the Oort cloud, the discovery of which would have little to no bearing upon life on this planet. It is

in this crossing from *techne* to *episteme* that Heidegger feels science has overstepped its bounds, for science is necessarily of limited use in the discovery of abstract truth and knowledge, and worse, tends to eclipse other useful epistemological tools.

The superstructure of capitalism is then built atop the scientific revolution. It is hard to read Heidegger's critique of science and not be reminded of capitalism, in the discussion of standing-reserve and the tendency to view the natural world as raw material, or to view human beings as a labour resource, a market, or both. The drive for efficiency can be seen in the same way, inasmuch as science concerns itself with efficiency and the discovery of the "rules" of the universe which can be exploited to maximum gain, as an unethical lawyer might exploit the "rules" of law. So, too, can the tendency of capitalism to induce human beings to see the world in highly marketized ways, as science induces us to see only the scientific and to dismiss the philosophical, the artistic, or the religious; the questions we bring with us define the answers we will receive.

This attitude can certainly be felt on the internet. The computer pioneer Steve Wozniak remarks that the internet was, at its inception,

"a breath of fresh air – it was so free, nobody owned the internet space... It was world-wide, [yet] it was people-to-people... the 'little people' all of a sudden had this incredible resource, and we didn't have to go through other people selling it to us and delivering it to us... [but] a lot of social interaction will be curbed – let me take that back, I fear it. I fear it will be. The gatekeepers, those who turn on-and-off switches, will allow certain things, disallow other things... I fear that very strongly."¹³⁷

The internet began as a free and open space for discourse and sharing, as a technology that allows dialogue and even closeness between people separated by huge geographical gulfs – something that Kant himself likely would have embraced, since he

¹³⁷ Steve Wozniak, interview by RT, August 14, 2012. Retrieved from <https://www.youtube.com/watch?v=LJnghGBBP2Q> on November 20, 2012.

praised the capacity of the ship and the camel to bring diverse people together for peaceful exchange and discourse, to be governed by public law and further the advancement of cosmopolitan constitution. Surely he would have been even more enamoured of a technology far better than either for these purposes.¹³⁸ Sadly, in this free and open space there seem to be edifices of control and curtailment under construction, dominated by corporations and conglomerates determined to monetize whatever aspects of the internet they can. The internet, in short, was seen as standing-reserve – a great potential that could be harvested for economic gain. It could not be left as a simple space for open, interpersonal, yet global and cosmopolitan discourse that nobody owned or controlled, like the forest or the river, but had to be exploited, its discursive spaces analyzed for their market potential and exploited for financial gain – and, as with the logging of the forest or the damming of the river, the continued existence of those spaces ranks a distant second priority behind the economic gain.

The internet is a purely synthetic realm. The natural world, such as Heidegger's rivers and forests, would exist even if humans did not. The natural world, existing independently of humanity, can be regarded in other ways. To see nature as standing-reserve is, as Heidegger remarks, just one particular way of looking at it. However, one must ask if this is also true of an artificial construction such as the internet, especially one conceived and developed when its parent society was deep in the technological age and had begun to view almost everything as standing-reserve. Arriving during this particular epoch, could the internet ever have been something other than standing-reserve, or was it always conceived thus, and perhaps it merely took humanity some time to realize it?

¹³⁸ Kant, *Perpetual Peace*, II:3.

For comparison, let us take another of Heidegger's subjects: art. Art, too, is a purely artificial creation. While a strict materialist might argue that a painting is simply a rearrangement of pigment on canvas, both of which are the products of nature (or at least, of natural materials), it is possible to respond that what makes the painting "art" is intangible. Heidegger's contention is that the physical components of art are not used up, but incorporated; art brings the components into their own. While art may have a character of physical existence, works of art have to be taken as they are *experienced*.¹³⁹ Still more problematic for the materialist are the intangible forms of art, such as the symphony, or the poem; while both may be written down, the writings are not the art; their destruction or copying does not affect the art, and performances or readings of either may vary relatively widely, yet still be recognized as the original art – in short, these intangible works of art are not rearrangements of nature, but purely synthetic constructs in the human mind. For example, Gregorio Allegri's masterpiece *Miserere mei, Deus* was composed in the early 17th century and originally performed quite differently from how it is sung today.¹⁴⁰ Despite the great differences in writing and performance of the piece – the original was forbidden to be performed outside the Vatican and, it is rumoured, is only known to a wider audience because Mozart recreated it from memory – there is no doubt that all versions of the *Miserere* are still the *Miserere*. What, then, is the "essence" of the *Miserere*? Surely it is something other than even the music itself?

Art, to Heidegger, is something that runs counter to science. While science sets out to find facts, in a most positivist manner, art contains both *world*, meaning intelligibility, meaning, and the revealing from concealment, yet also *earth*, which resists

¹³⁹ Heidegger, *Origin of the Work of Art*, 145, 173.

¹⁴⁰ This is one of my favourite pieces of music, and I possess no less than fifteen different *modern* recordings of it.

meaning and conceals; art does not resolve the strife between them, and as art reveals, it simultaneously conceals. Science, unlike art, cannot create or open truth, but only explore a realm of truth that has already been opened.¹⁴¹

However, art – or, at least, some art – has come to be regarded as standing-reserve also. The commercialization of popular music or movies is obvious and much-lamented by critics and the aesthetically-minded public alike; film and song are frequently regarded in terms of their marketability and commercial potential virtually divorced from any aesthetic considerations.¹⁴² The obsession of Hollywood with established franchises and bankable lead actors needs no introduction, and surely neither does the music industry’s efforts to manufacture stars who may often not be the creators – or even the performers – of “their” music. Even Banksy, the pseudonymous hit-and-run street artist, has sold works at auction for six-figure sums, and bears a large part of the credit for the subsequent commercial success of street artists. Art of a distinctly “renegade” bent, it seems, can still be commercialized.

Of course, not all art is seen as standing-reserve in this cynical and commercialized manner, nor has all art been successfully “conquered” by the scientific mindset and the capitalistic system it gives rise to. Heidegger would probably contend that art for commercial purposes, art that was standing-reserve, or art that had been “conquered” by science, was no longer art at all, for it has lost its ability to reveal and conceal. It has ceased to become art, and instead become *equipment*, something manufactured in order to be consumed. However, in the purely artificial creation of art, perhaps there is a comparison to be made with the purely artificial creation of the

¹⁴¹ Ibid. 174-175, 187.

¹⁴² The runaway financial success of Michael Bay movies gives weight to this argument even while it strips hope from film-lovers.

internet. Even though some art may be corrupted so as to become standing-reserve, losing its artistic qualities, it cannot be *inherently* standing-reserve since there was a time when it was not considered so, and not all of it has become standing-reserve. Poetry, for example, seems to have largely resisted commercialization, and while classical music may have been adopted for movie and videogame soundtracks, a great deal of it is (relatively) non-commercial. At least some art-forms, or some parts of each art-form, seem able to resist.

Heidegger seems to consider the painting as quintessentially artistic, and yet in his own time just as long before, paintings had a distinctly commercial streak to them. The Old Masters generally worked on commission from wealthy patrons who “consumed” art, for example, and while some patrons might have been willing to pay for anything by Rembrandt or Leonardo, for others, the artist’s work was to be dictated (portraiture, for instance). Yet this commercialized element, this hint of standing-reserve, does not seem to have swayed Heidegger from his conviction that art runs as a counter-force to science. Perhaps there is something unique to art that makes it thus, but one cannot conclude that entirely artificial creations only derived from nature in the most abstract way (the rearrangement of pigment to form a painting, the molding of wood, glue, and catgut into the violin which will play the solo, or the bunching of silica into bundled strands that will carry the information of the internet) must *necessarily* become standing-reserve.

In the frenetic computer age, the internet before the world-wide-web (WWW) seems like ancient history. For an example of the internet whose passing Wozniak laments, let us take Usenet. This is an “old” internet technology, preceding the WWW by over a decade. It was started in 1979 by two Duke University graduate students, and

functions like a hybrid between a forum and an e-mail system; users post messages (individually known as *posts* or *articles*; collectively referred to as *news*) on various discussion boards known as *newsgroups* named for their subject and content, e.g. talk.politics.theory. The posts are not held on a single server, but are distributed over a large, ever-changing, and widely geographically dispersed collection of servers which forward posts between themselves as they are made. These servers are widely distributed amongst universities, public institutions, and private companies, but due to the decentralized nature of the network, no single server owner has any power over the network as a whole. The sudden refusal of any particular provider to participate would not impact the network – no posts would be deleted, no groups would be closed, no archived material would be lost, and discussion would continue to flow. Usenet itself is now in decline and almost all the traffic is in pirated intellectual property rather than discussion, while most internet service providers have dropped support for it, citing low subscriber interest (having lost its readership to its more graphic offspring, blogs and online forums, much as radio lost to television). Those who wish to access the service must now find an independent news provider and pay an additional fee to that firm.

Usenet is symbolic of what the early internet was about. Access was restricted only by access to the internet itself. It was a space for discussion of an unlimited number of topics by an unlimited number of people separated by unlimited geographical distance and time, since one could read and respond to a message at any point – thanks to the efforts of archivists, it is theoretically possible to reply to a post made decades ago.¹⁴³ Wozniak described it as “a breath of fresh air,” and, indeed, nothing like it had existed before. It was a mode of communication that could take the format of a letter, but it could

¹⁴³ And if the newsgroup you wanted does not exist, you can create their own.

be received with the immediacy of a telephone call; it could be read by a readership rivalling that of a major daily newspaper, and yet be responded to by potentially anyone capable of reading it in the first place. This was an *agora* that could potentially encompass the entire world and be accessed by it at its leisure.

Until the early 1990s, the internet was strictly for enthusiasts only, and the telecommunications technology of the time was only realistically capable of text communication since the “plain old telephone service” (POTS – the voice-grade, pre-digital telephone network) modems then in use would take hours to transmit even photographs considered fairly low-resolution by 2013 standards. With the advent of the World Wide Web in 1993 and with better telecommunication technologies, internet usage exploded in the mid-1990s. In 1993, the CBC reported that the internet was growing at a rate of ten per cent every month.¹⁴⁴ The burgeoning internet was increasingly colonized by financial interests, and the word “colonized” is used deliberately for reasons that will become apparent later. To put it in Heidegger’s terms, the rapid expansion of the internet turned the attentions of the technologically-minded to it, and what they saw was the standing-reserve of untapped markets for services and commercialization.

The distributed server network has now been replaced by centralized servers operated by companies such as Facebook, Google, eBay, Apple, Microsoft, and so forth. Recent years have also seen a large number of buy-outs and mergers, further concentrating online media into a smaller and smaller number of hands, mirroring the experiences of more conventional media in the 1980s and 1990s.¹⁴⁵ At the time of

¹⁴⁴ CBC News, “Birth of the Internet,” July 25, 2007. Retrieved from <http://www.cbc.ca/news/background/internet/> on December 5, 2012.

¹⁴⁵ Benjamin Barber, *Jihad vs. Mcworld: Terrorism’s Challenge to Democracy* (New York: Ballantine, 1996), 138.

writing, for example, Amazon has acquired 22 companies since its founding, while Facebook has acquired 42, eBay 45, Apple 53, and Google 127.¹⁴⁶ The list of formerly independent major technology firms includes Netscape, Hotmail, Geocities, PayPal, Craigslist, YouTube, Lycos, Instagram, MySpace, Ask.com, Tumblr, NeXT, FeedBurner, Android, Skype, and WebTV, and does not include substantial holdings purchased in yet more companies, including those that the major internet and media firms hold in each other (such as Microsoft's \$240 million stake in Facebook, its \$605 million share of Barnes & Noble, or its \$5 billion investment in AT&T).¹⁴⁷

Instead of a distributed network where no single server owner/operator can impact the service as a whole, these organizations now have tremendous control over internet usage and content. Imagine the impact to social networking if Facebook disappeared, how web searches would change if Google was no more, how much independent internet video would be lost if YouTube closed their servers, or how digital music distribution would be affected by the disappearance of iTunes. These are the “gatekeepers” whom Wozniak referred to, so-called because their existence as content providers of such enormous reach and power gives them incredible capacity to shape and change the information that flows through their servers. It is certainly not necessary to document the concerns that this raises, for a simple search of news sources reveals a seemingly endless

¹⁴⁶ See Appendix I.

¹⁴⁷ Brad Stone, “Microsoft Buys Stake in Facebook,” *The New York Times*, October 25, 2007. Retrieved from <http://www.nytimes.com/2007/10/25/technology/25facebook.html> on Nov 21, 2013.

Shira Ovide & Jeffrey A. Trachtenburg, “Microsoft Hooks Onto Nook,” *The Wall Street Journal*, May 12, 2012. Retrieved from <http://online.wsj.com/news/articles/SB10001424052702303916904577375502392129654> on Nov 21, 2013.

Steve Lohr, “In AT&T Deal, Microsoft Buys Itself a Stake in ‘Post-PC’ Era,” *The New York Times*, May 07, 1999. Retrieved from <http://www.nytimes.com/1999/05/07/business/in-at-t-deal-microsoft-buys-itself-a-stake-in-post-pc-era.html> on Nov 21, 2013.

number of stories which fret about the possible abuses of power by the gatekeepers, including violations of privacy and information-gathering, censorship, bait-and-switch tactics to squeeze profits out of consumers, and so forth.

In his *Defense of North America*, George Grant elaborates upon the “primal” of North America created by the combination of a Protestant/Calvinist strain of theology and Baconian science which formed the dominant character of those Europeans who happened upon the “untamed wilderness” of the Americas. Rejecting Greek ideas of nature and humanity’s place in the natural order, Baconian science led us to conquer nature as much as Calvinist theology urged us to conquer ourselves. This primal gave an expectation of a certain kind of freedom which was perhaps never realized, Grant contends, as the conquest of the land yielded not an age of material abundance but only numberless metropoloi where literal squalor vied with the metaphorical poverty of mindless consumerism. Even though the pioneers are all gone and the pioneering spirit is certainly irrelevant to modern, urban, mass-consumption society, the primal remains with us and shapes our attitudes.¹⁴⁸

It is for this reason that I describe the internet as having been “colonized,” for Grant’s description of the scientific-Calvinist mindset and its effect upon the Europeans who colonized North America can also be read as a metaphor for what happened in the online world around twenty years after he wrote it. The internet was akin to an undiscovered continent (albeit without inconvenient natives to be displaced or disposed of – and Usenet makes for a spurious analogue), arising in virtual space, but appearing in our consciousness from nothing in much the same way as the Americas appeared in the consciousness of Europe in 1492. Millions of internet users, growing in number every

¹⁴⁸ Grant, *In Defence of North America*, 347-351.

day, were seen as an opportunity both by established firms and by entrepreneurs. A few of the latter managed to found successful companies, such as Amazon, but most failed in the 1997-2000 dot-com bubble – the first wave of internet “colonization.” This mass of potential consumers seemed to be viewed with the same mindset as the discovery of new lands potentially rich in natural resources, resulting in something like the Klondike Gold Rush – the rapid spread of rumoured fortunes to be made, without doubt vastly exaggerated, followed by a haphazard and ill-planned scramble to capitalize on the phenomenon before it became too late, with the result that most left with nothing.

Grant’s apprehension is similar to that of Heidegger, for to the technologically-minded, any untamed wilderness will be approached as an opportunity to colonize, capitalize, and exploit, for it is all seen as standing-reserve, ripe for exploitation. Perhaps it was not a coincidence that colonialism appeared with the Renaissance and reached its peak in the 19th century, in the rational-scientific Victorian era, famous not just for an obsession with colonialism and empire in the foreign policies of the major Victorian powers, but for the great number of engineering, scientific and technical geniuses that it produced. It is apparently impossible to see an untamed wilderness and leave it unspoiled, as Heidegger remarked; the wilderness must be colonized, conquered and transformed, and the race is on, for if we do not do it then someone else will, and then we shall lose out. The “Scramble for Africa” was one such example. The “Scramble for the Internet” might be another.

The application of the scientific enframing to the social sphere, to human labour and to economics, returns us both to the *agora* and to the internet. Instead of a medium for discussion and discovery, the internet is regarded by the gatekeepers in terms of

economic potential. The discussions of Usenet cannot be quantified in terms of their value, but e-commerce can, and so begins the conquest of the gatekeepers. It is difficult to see what Facebook messages or wall posts offer that Usenet does not, and yet the latter is in decline while the former is waxing. Heidegger would undoubtedly remark that the technological minds at Facebook (and the companies which preceded them, and those which they bought out, lest it be said that I give Facebook credit for originality that they do not deserve) had perceived the phenomenon of online communication and regarded it as a standing-reserve, and not purely by conscious choice – if at all. The potential to exploit it lies in channeling it through a service where it can be monetized. If communications can be made to flow through centralized Facebook servers rather than through the decentralized and nebulous cloud of Usenet, then content can be analyzed and scrutinized for marketing potential, so that the tailored advertisements can appear on one's Facebook page, crafted out of a cloud of keywords which Facebook's analytical software has plucked from wall posts and messages. Just as the technological mind looks upon the forest and sees lumber, so, too, it looks upon "netizens" and sees consumers.

The essence of Heidegger's critique of Kant, as augmented by Grant, might be summarized as this: technology cannot liberate or assist in liberation by itself, will not be of any great help in human emancipation, and is probably an active hindrance. Firstly, the mindset of the technological all but guarantees something like colonization and empire-building since new virtual spaces will be used not for discourse or for any cosmopolitan project of liberation, but will be harnessed for productivity and profit. Secondly – and this is drawn much more from Heidegger than from Grant – even if technology could liberate

us politically, what then will liberate us from the technological, and from the narrowing of our collective vision?

There is something quite teleological in Heidegger's assessment, however, and even something hopeful. Technology has the potential to be that which saves, if only we can manage to raise our gaze to the unfolding of technology rather than its marvels alone. "So long as we represent technology as an instrument, we remain transfixed in the will to master it."¹⁴⁹ Not so for Jacques Ellul, however, who is much more pessimistic about technology, and whose only promise of salvation even seems confounded by his own criteria.

According to Ellul, the problem of technology is not the use of technology, for this confuses technology and the machine. The machine can be used for many purposes, but only one is technical, and technique has no end other than itself. Moreover, technique does not make moral judgements but creates a technical "morality:" *how* replaces *should*.¹⁵⁰ The technologies of the internet in particular are advanced technologies whose development and use is possible only in a society that has already made great advances in electronics and miniaturization, which require a good understanding of quantum mechanics, the ability to cost-effectively engineer at the nanometre level, an understanding of the role of software, and so forth. Even thirty or forty years ago, these were insufficiently understood to allow anything like the modern computer hardware or software that makes the internet possible, and this is not to mention more elementary technologies such as the reliable delivery of alternating current, the manufacture of plastics, etc. It was only with the creation of computers for the Apollo program that the

¹⁴⁹ Heidegger, *Question Concerning Technology*, 337.

¹⁵⁰ Jacques Ellul, *The Technological Society*, trans. John Wilkinson (New York: Vintage, 1964), 96.

separation of software from hardware became understood, for example; this was on then state-of-the-art hardware that was many orders of magnitude less powerful than a modern cellphone.

The point is that a society capable of producing such technology sits at the apex of a pyramid of supporting technologies which had to be mastered at earlier points in time – a society steeped in technique. Eratosthenes’ measurement of the earth’s circumference depended only upon sticks in the ground and Galileo’s observations required only hand-crafted instruments, but the internet is a superstructure built upon a technological and industrial edifice of dizzying size and sophistication. If Ellul is correct, to progress this far would have meant that the technical morality would have replaced philosophically-derived moral judgements long ago. Technical progress is geometric, he argues, and the technical progress of any given civilization is irreversible.¹⁵¹ There is no going back, and there is no standing still, only a galloping forward at a geometrically increasing rate – a reiteration of Moore’s Law if ever there was one.¹⁵²

So the stage is set for our present conundrum, and like both Grant and Heidegger, Ellul would probably say that it was inevitable that a development such as the internet, as dependent upon technique as it was, would be degraded in some way and would lose the social and even spiritual aspects it may once have had in favour of the technical. He might have been surprised that it took so long. Ellul’s work has a more specific bearing upon this particular problem, however. He originally discussed “technical automatism” in reference to Marxism, but it seems that the lessons can be applied to this situation as well.

¹⁵¹ Ibid., 89.

¹⁵² Intel executive David Moore predicted that the number of transistors on integrated circuits would double approximately every two years. This prediction was made in 1965 and has proven eerily accurate for almost five decades.

In this phenomenon, humans are stripped of choice in methods, organization, and so forth, yet are satisfied.¹⁵³ If one is deprived of opportunities to participate in the “authentic” human social experience, Ellul argues, it is not, strangely, grounds for unhappiness. The removal of choice is accepted and even welcomed, and very few are sad to see their options being curtailed and their horizons limited.

So might be described the transformation of the internet. What began as something quite human, despite its dependence on the technological, is reduced to the technical. If we take as read Wozniak’s likening of the early internet to a “breath of fresh air,” revitalizing and revolutionizing discussion and human interaction, then the advent of the gatekeepers removes choice from it, yet everyone is happy with this state of affairs, blissfully participating in Facebook discussions or watching YouTube videos without seeming to wonder why their options for participating in and enjoying these media are increasingly constrained and limited. Moreover, as Karim remarks, the information society is in the midst of a great conjuring act wherein data and information are conflated with knowledge and wisdom, and individual happiness is promised just by tapping into the vast wealth of online information.¹⁵⁴ The information revolution has been heralded as a saviour, and this is to suppose that the solution to our problems is to widen and deepen technique.

Ellul also claimed that as technique progressed, the individual with a preference for solitude would find it increasingly difficult to disengage materially or spiritually from

¹⁵³ Ellul, *Technological Society*, 82.

¹⁵⁴ Karim H. Karim, “Cyber-utopia and the Myth of Paradise: Using Jacques Ellul’s Work on Propaganda to Analyse Information Society Rhetoric,” *Information, Communication & Society* 4:1 (2001): 130.

society; technique would invade that individual's entire life.¹⁵⁵ As the development of the internet has progressed, again, this seems increasingly applicable to the online world. The universality of technology is not applied equally to all people in society but seems to be somewhat generational: while many members of older generations refuse to have an e-mail, Facebook, Twitter or LinkedIn account, a Western citizen under the age of thirty who did not possess at least some of the four and use them regularly, if not compulsively, would be rare. Moreover, and here we return to Ellul's prediction, such a person would find themselves cut off from a great deal of human interaction, socialization, news and current events, and so forth, were they to renounce smartphones, e-mail, new social media and the internet.

It might be said that this is reading something into Ellul's work that is not there. *The Technological Society* was written in 1963, when transistors had only recently replaced vacuum tubes, integrated circuits had not yet been invented, and ARPAnet – the first packet-switching network – was still a blue-sky hypothesis. However, the internet surely remains one of the ultimate expressions of technique, and as it becomes increasingly true that, for some, offline and online worlds and identities become blended, Ellul's arguments become more and more applicable. This merging of the offline and online, on either side of a boundary once defined quite sharply, seems to be proceeding rapidly in a certain segment of the technologically-aware population. Apart from the meteoric rise of social networking and micro-blogging sites as a standard mode of socialization and information-gathering, there is the increasing merger of online and offline shopping and banking, for example – activities that once took place entirely in the

¹⁵⁵ Ellul, *Technological Society*, 139-140.

physical world. With the advent of e-readers, online content services, and e-stores, the shopping “experience” for many goods and services can now be entirely digital. One visits the online store, browses for the content one is looking for, completes the purchase online with an encrypted credit-card checkout, and receives the content either streamed or downloaded to disk over a broadband connection. The purchase, once the exchange of money for tangible goods, can now be entirely virtual – digital currency for digital property, with neither having any corporeal form.

Ellul gives three ways out of the technological society: apocalypse, enlightenment, or divine intervention.¹⁵⁶ He identifies problems with the technological society, but with these answers, it is safe to say he has no realistic solutions to offer. The main flaw in his thinking, however, is something that can be found in any profoundly structuralist argument: if the technological mindset is so powerful and drowns out other voices both in ourselves and in society at large, then why is it that we would be able to identify it, and why are there so many dissenting voices? The very fact that Ellul has apprehended the technological mindset, that so many others have read and agreed with it, and so many more seem to have reached similar conclusions on their own, seems to indicate that its hold is not so strong that it cannot be opposed, and not so pervasive that it cannot be detected or that alternatives cannot be imagined. If it is not so pervasive and subversive as supposed, then perhaps it is not as dangerous; if we can apprehend the problem, it would seem that we may be able to produce a solution – if the problem is really so grave at all.

¹⁵⁶ Charlotte Thomas, “Globalization, Technology and the Authority of Philosophy,” in *Globalization, Technology, and Philosophy*, ed. David Tabachnick and Toivo Koivukosi (Albany, NY: SUNY Press, 2012), 222-223.

For example, in the last few decades alone there has arisen a veritable rash of movements and ideals opposed to technique. The environmentalists, for example, have become politically influential and exert considerable power over policy (particularly in Europe), and at its heart, environmentalism is fundamentally opposed both to a conception of the world as Heidegger's standing-reserve, and to Ellul's technological drive to ever-greater efficiency and production. There are many sub-groups within the environmentalist pantheon, and not all of its members subscribe to all or even most of them, but among those most commonly adhered to are the sanctity of non-human life and the need to preserve habitats and environments, the desire to preserve the natural beauty of the world, and the search for a calmer existence absent the treadmill of production.

The link between technique and capitalism is obvious. Heidegger's standing-reserve is undoubtedly the way that the capitalist views the world, with everything as yet outside the sphere of capitalism seen as untapped resources or untapped markets. Consumerism is the same mindset at a personal level, where happiness is linked to material acquisition – the world exists to be acquired, and to acquire it is fulfillment. If capitalism is linked to and symptomatic of the technological worldview, then, as it seems clear that Heidegger and Ellul both intend it to be, then anti-capitalist movements must be opposed to that worldview.

There are many such movements. In the 1980s and 1990s, with capitalism revelling in its supposed victory over both Soviet Marxism-Leninism and the mixed-economy doldrums of the 1970s, it appeared that the environmental movement was the cutting edge of anti-capitalist agitation and, perhaps, the only such movement with much

life left in it.¹⁵⁷ While there might have been cause for despondency among socialists when technological capitalism of the 1980s and 1990s seemed all-conquering, this resurgence of technological-capitalism has produced increasing wealth inequalities, environmental catastrophes (the worst of which are yet to come), and several economic crises, the latest iteration of a magnitude not seen since the Great Depression. In the wake of these insults to the supposed impregnability and infallibility of technological capitalism, more such movements have proliferated, and old ones have acquired new life.

Some resistance to capitalist domination seems to remain within the technological camp, such as Marxism and the labour movement in general (Marxism being devoted to rationality, science, industrial production and distribution, albeit in the interests of a different social class, while the labour movement largely seeks more equitable distribution and fairer treatment in the existing socioeconomic structure), but there are others which seem diametrically opposed, such as the hippie and punk countercultures of the 1970s and 1980s, New Age spiritualism, fundamentalist Islam and Christianity (and while the latter makes a strange bedfellow with capitalism, perhaps it is not too controversial to suggest that it sits at odds with science and rationality), or, recently, the Occupy movement.

The latter is particularly interesting, for Occupy made considerable use of internet technologies, including CMC, to organize the movement and their protests. This use of technology to subvert the technological mindset is significant, for it implies that technology can be removed from the “technological.” As Ellul remarked, the machine can indeed be *theoretically* used at cross-purposes with technique, but these *practical* uses imply that technique is not as all-powerful as he supposed. These new technologies

¹⁵⁷ David Harvey, *The Enigma of Capital* (Oxford: Oxford University Press, 2010), 78.

are evidently a threat to technological regimes, since within the last few years there were a number of instances wherein states contemplated or actually undertook a ban on social media or internet usage. The British government considered a bill to shut down British CMC during periods of “social unrest” (due to the utility they had offered to dissenters during the recent European wave of anti-austerity protests and riots), while the Egyptian government took the still more radical step of shutting down the internet entirely for several days as the local phalanx of the Arab Spring reached critical mass. The “Great Firewall” of China has grown notorious, and surely the Chinese state is one of the most technological (in Ellul’s sense) in the modern world, dedicated as it is to science, engineering, and economics, and highly disdainful of philosophy or the arts, frequently condemning the latter as subversive and dangerous (however, the Great Firewall is routinely bypassed not only by Chinese dissidents but also by ordinary citizens uninterested in politics who wish to participate in Facebook and other banned sites, and these bypasses themselves are accomplished using internet technologies).

If such anti-technological movements can exist and flourish, and, moreover, are using technological means to flourish (rather than an outright rejection of technology as per, for example, the Luddites), then perhaps the technological society is not as entrancing as Ellul supposes, and technology can be divorced from technique. Heidegger allows for the potential of technology to also become “that which saves,” if only we can manage to raise our gaze to the unfolding of technology rather than its marvels alone. He wrote that as technology threatens to sweep mankind aside, we may become aware of the power of technology to do this, cease to be transfixed by our desire to master it, and

resolve to save ourselves.¹⁵⁸ Perhaps the existence of these movements reflects this prophecy coming to pass, and perhaps we are witnessing the end of a Heideggerian epoch, when human nature and human desires and understanding will be changed – again.

Yet if it is possible for technology to be used in freeing ourselves from the shackles of a technological enframing, then Kant was right after all, and technology is merely an instrument shaped by human desire rather than an entity that shapes it. Technology serves two masters, both the established forces of technique, capitalism, and state power, and the dissidents and protesters who oppose them. That lends weight to the idea that technology itself is value-neutral, and is merely exploited by people of differing mindsets and motivations, rather than actively shaping those mindsets and motivations. If society has become entranced by the technological, then that is by coincidence and of our own doing rather than by the power of technology to do so – and, therefore, to free society of it does not require us to cast aside technology. The Kantian message (and perhaps even the Heideggerian one in the final analysis) is that technology is a tool which we can use to lift ourselves upwards as a society, and not one that will hold us down. There are many people who develop and embrace technology yet also pursue Kantian ideals of liberalism and freedom, not in spite of technology but using it: Steve Wozniak, who is not only the co-founder of Apple, Inc. but also of the Electronic Frontier Foundation; Richard Stallman, a world-class software developer but also a fierce advocate of free software (not only “free as in beer” but also “free as in speech,” as he likes to say); Linus Torvalds, who wrote the Linux operating system and then not only gave it away for free but allowed open access to the source code as well; Julian Assange,

¹⁵⁸ Heidegger, *Question Concerning Technology*, 337.

whose Wikileaks project relies upon internet technology to promote transparency and liberalism for citizens otherwise dominated by states, corporations, and NGOs. Evidently, to be an engineer deeply invested in technology and technique by no means prevents one from also becoming an advocate of liberalism, freedom, and social justice, or from employing technical skills in those pursuits.

Ellul and Heidegger both believe that the technological society and the cultural obsession with technique, and the attendant, blinkered, rational-scientific mindset, are rather new phenomena from no earlier than the 20th century and quite possibly not even until some decades into it, beginning with the Second Industrial Revolution, oil power, and internal combustion, or even later, with the digital age. Richard Sennett counters that the phenomena which they observe are actually much older than that, and simple causality therefore dictates that the blame for them cannot be laid at the door of new technologies alone, which would exonerate digital technology as an agent of such change. Sennett argues that the impulse to withdraw from public life began long before the advent of electronics, which are not “infernal devices” but tools invented to fulfill pre-existing human needs and desires. The cultural impulse to withdraw from social interaction in order to know and feel more as a person does not date from the advent of CMC, or even from that of television or the radio, but from the great, wrenching changes in public life that started in the 18th century. What we are witnessing today, therefore, is a continuation of trends now over two hundred years old.¹⁵⁹

The advent of electronics did not substantially alter the patterns of society, but in the 18th century, industrialization and urbanization did. Agrarian economies were quickly revolutionized into industrial ones; farming fell from the most common to one of the least

¹⁵⁹ Richard Sennett, *The Fall of Public Man* (New York: Vintage, 1978), 125, 282.

common professions, and the feudal customs of serfdom, quitrent, and so forth which had composed the social landscape of Europe for over a thousand years were suddenly abolished. Largely rural populations were suddenly flung into large cities to feed the industrial demand for cheap labour. Feudal landowners and nobles living in their country seats were no longer the most powerful or the wealthiest social group, and had to make way for the *nouveau riche* urban bourgeoisie, who quickly demanded political changes to match the social ones. Canals, railroads and telegraphs suddenly and massively revolutionized communications, trade, and travel, which had all been bound to muscle and wind power for thousands of years.

This shift from agrarian to industrial, rural to urban, and feudal to bourgeois-liberal was the historical site for the beginning of modern public life, for the blurring of public and private, and for the desire to participate in public life more selectively and on one's own terms rather than to be suddenly thrust into the public sphere. Timothy Leary may have popularized the now shop-worn phrase, "turn on, tune in, drop out", but the desire to "drop out" of mainstream public life in search of a more meaningful, personal experience was already a century-and-a-half old when he first said it. Sennett cites Maxime du Camp, who wrote that the nature of public opinion and interest "is as if people's heads are turned by a wind of madness... enthusiasms are sudden, and they are sometimes tremendous, but they don't last long." Du Camp is not describing the whimsical modern fascinations with internet memes (and the sudden elevation of all things feline to the status of a cultural touchstone), but the fickle and extremely transient nature of popular attention in Paris of the mid-19th century.¹⁶⁰ Here, Sennett's thesis is

¹⁶⁰ Maxime du Camp, quoted in Joanna Richardson, *La Vie Parisienne, 1852-1870* (New York: Viking, 1971), 77.

that the Victorians were not very different from ourselves in their social attitudes and behaviours, and certainly they have far more in common with us than either of us does with the medievals, or the ancients.¹⁶¹

If these social patterns and impulses predate electronics, then electronics cannot be responsible for them. This sequence of events would prove Sennett and Kant correct: since the great shifts in public life occurred in the 18th and 19th centuries, modern technologies such as CMC have merely been developed to further those impulses. For example, Sennett remarks that one of the oldest Western conceptions of human society is *theatrum mundi* – life as theater. In the Christian era, the audience for the world theater was God, but by the 18th century, those who adhered to this theory now held the performers to be performing for one another.¹⁶² It is difficult to read this and not to be reminded of the social posturing on Facebook, Twitter, internet forums, and so forth, where the performance of social theater is aided by the internet's promise of relative anonymity – to make the dramatic mask so impenetrable that the identity of the actor cannot be revealed. These technologies have not created the phenomenon of social theater, but have merely enhanced it, and if the impulse towards social theater performed for one another (or, at least, the tendency to see society in such a fashion) is centuries-old, then it is logical to conclude that these technologies were probably developed to satisfy the human need to make the performance of social theater more convincing and

¹⁶¹ For example, those who believe that the internet is responsible for the popularity of pornography should consider the seemingly insatiable Victorian appetite for it: see Deborah Lutz, *Pleasure Bound: Victorian Sex Rebels and the New Eroticism* (New York: W.W. Norton, 2011) or Steven Marcus, *The Other Victorians: A Study of Sexuality and Pornography in Mid-Nineteenth-Century England* (Livingston, NJ: Transaction Publishers, 2008).

¹⁶² Sennett, *Fall of Public Man*, 34-35.

more accessible. Moreover, nothing could be more wrong than to blame internet technologies for the performance of social theater.

There is also a counter-argument derived from Hannah Arendt, whose arguments support the contention that CMC cannot be a substitute for traditional political forums or for face-to-face contact. The incorporeal nature of the internet “space” also seems to condemn it as a meaningful forum, and in addition, the appearance of the internet may further compound the blurring of the line between public and private space that Arendt finds troublesome. The Greeks believed that public space and political life were different from, and stood in opposition to, the home and the family – the threshold was a barrier which the ancients had to cross in order to transcend the household and “rise” to the realm of politics. Since the Classical period, we have seen the rise of the social realm which is neither strictly public nor strictly private; consequently, this vague middle ground has served to blur our understanding of what constitutes public and private.¹⁶³ Society excludes the possibility of action, since it expects a certain kind of behaviour and imposes norms and rules. For the Greeks, the public space presented an opportunity to show who they really were. Moreover, it gave the opportunity for others to see who they really were, for in acting and speaking, a person shows who they truly are – the revelation of “who” a person is rather than “what” she is; her gifts, qualities, talents, shortcomings, and so forth. Hiding the agent robs action of specific character. It is important to be able to perceive people in order to judge not only what they say but who they are, and this is perhaps an insurmountable challenge for the internet, especially considering its power to anonymize.¹⁶⁴

¹⁶³ Arendt, *The Human Condition*, 24-33.

¹⁶⁴ *Ibid.*, 40-41, 179-180.

Firstly, in response, it is possible that all of this may be true and yet the anonymous deliberative spaces of the internet may still be useful for political discourse. The inter-personal, immediate, and intimate deliberation which Arendt prizes may be held up as an ideal to be practiced in societies and under political regimes in which the right to participate in such discussions is protected and upheld. However, not all regimes live up to this standard. In such regimes, while anonymous internet forums with the protection of encryption may not be optimal, they are better than the stilted, censored, and self-censored discussions which are the only kind that tend to be held in a corporeal forum – in short, not the best, but the best available. Online discussion may be a poor substitute for the *agora*, in Arendt’s estimation, but it is better than nothing at all. Furthermore, by fostering public politics and enabling the voicing of dissent for regimes that forbid the involvement of citizens in politics, it may serve to move those regimes closer to a state of tolerance for political dissent and discussion – and, therefore, the technologies that allow this to happen are actually moving us closer to the Kantian ideal of universal liberalism, republicanism, and hospitality.

Secondly, Arendt’s assessment of corporeal intimacy’s desirability in discourse, the need to see the *daimon* of one’s interlocutors, is drawn from Greek thought, particularly from Aristotle. Both Aristotle and Plato deplore the ability of rhetoric to deceive and delude the credulous, however, and the Enlightenment tradition builds these reservations about the potential abuse of rhetoric into a total disavowal for anything but *logos*.¹⁶⁵ This tradition, which includes the work of Kant, holds that reason alone should win discussion, and that arguments, political or otherwise, ought to be considered on their logical merits alone, rather than the character of the speaker or his ability as a rhetorician.

¹⁶⁵ Triadafilopoulos, “Politics, Speech, and the Art of Persuasion,” 744.

The appeal to pure reason might be thought to fall into the camp of the technological as described by Heidegger, inasmuch as it rejects feeling or emotion as irrational distractions, but this is probably fallacious. Science does not have a monopoly on reason or logic, and the embrace of reason does no disservice to philosophy, at least some of which has embraced logic from Aristotle onwards. The only other comparison to be made regards the advocates of reason dismissing emotion and feeling in the same way as the scientific mind dismisses philosophy or art, but perhaps all theories are dismissive of their competition, and this does not necessarily make them partners. Strict plurality contains a self-contradiction, for it is itself an opinion that must either supersede others or concede its own worthlessness – the contradiction of tolerance, for example, which cannot extend to the intolerant, and which cannot concede that intolerance is as valid as tolerance.

Habermas in particular is one such proponent of Enlightenment, Kantian reason, and his deliberations on the public sphere are particularly relevant here. Contra Arendt and Aristotle, he argues that speech ought to focus on reason alone and that ideas ought to be defended through *logos* – “a politics radically situated in this world should be justifiable on the basis of reason.”¹⁶⁶ However, the Habermasian model holds that the public sphere exists wherever and whenever people affected by the social and political norms of action are engaged in practical discourse.¹⁶⁷ This definition is radically inclusive enough that the virtual spaces of the internet could easily be included in it. The Habermasian public sphere does not contain actors, as only the administrative system can

¹⁶⁶ Jürgen Habermas, “Popular Sovereignty as Procedure,” appendix I to *Facts and Norms*, tr. William Rehg (Cambridge, MA: MIT Press, 1996), 470.

¹⁶⁷ Seyla Benhabib, “Models of Public Space,” 87.

act politically, although the public opinion as expressed, defined, and created in the public sphere may program the ruling body.¹⁶⁸

The deliberative spaces of the internet are virtual rather than physical, do not have the power to decide policy, and while there is some room for *pathos* even if there is little for *ethos*, the anonymity of the internet and its restriction to the written word or the pre-recorded podcast or video places a strong emphasis on *logos*. All of this may disqualify it from becoming a proper deliberative, political space in some traditions, but a strong and influential tradition – perhaps even the dominant tradition in modern, Western political philosophy – would have to accept it. Even according to Arendt, the internet “spaces” may not be *ideal* discursive spaces, but they may remain spaces nonetheless and, while a poor substitute for a physical *agora*, we should be willing to embrace them where the optimal forms are impractical or dangerous, or perhaps even when they are so unpopular as to border on the irrelevant, as surely the physical town-hall meeting has become when contrasted with the volume of online discourse. It is also arguable that the internet is merely symptomatic of social change and the transformation of the public sphere rather than a causal agent, and this would confirm the Kantian conception of technology as a tool developed to serve human needs and desires, rather than an enslaving influence over human existence.

Another objection to the deliberative potential of the internet, particularly when anonymity is allowed, is the great potential for incivility. Casual users of internet discussion boards or those who endure a quick perusal of the comments on YouTube or unmoderated news sites will be familiar with the profanity, the racial and sexual slurs, the

¹⁶⁸ Jürgen Habermas, "Three Normative Models of Democracy: Liberal, Republican, Procedural," in *Questioning Ethics: Contemporary Debates in Philosophy*, eds. Richard Kearney & Mark Dooley, (New York: Routledge, 1999), 142-143.

petty jingoism and xenophobia, and so forth that plagues them. Mark Kingwell finds the internet most objectionable precisely because it is so uncivil so much of the time, and because rational dialogue is so hard to find and so easily spoiled. Kingwell borrows from Charles Taylor in observing that individual freedom without any other values quickly gives way to vanity and relativism, and as the ultimate expression of this, “the internet is a reality that is sad, aimless and anti-democratic.”¹⁶⁹ Incivility is profoundly damaging to political discussion, and therefore, online discussion boards are “surely... not genuine forms of democratic debate.”¹⁷⁰

There are several objections to this, however. Firstly, the internet is a medium for *popular* debate, and is not restricted to elected officials, functionaries, academics, professionals, or other social elites. Neither wealth nor education is an access barrier. It cannot be fairly compared to the Roman senate, nor may internet users be fairly compared with Cicero, any more than it would be fair to compare a bottle rocket with the Saturn V. Public political discourse, it must be noted, has been uncivil for a long time, and attempts to state otherwise are a whitewashing of history, intentional or otherwise. The letters of Cicero are more widely read and studied than the graffiti of Pompeii, but it would be an error to suppose that two ordinary Roman plebeians discussing politics in a bath-house would be closer to the former than the latter. The writings and monologues of the men of letters are recorded and studied, not the public-house arguments of commoners.¹⁷¹ Internet forums are the proper heirs of the latter, not the former.

¹⁶⁹ Mark Kingwell, *Unruly Voices: Essays on Democracy, Civility, and the Human Imagination* (Windsor, ON: Biblioasis, 2012), 62-64.

¹⁷⁰ *Ibid.*, 161-162.

¹⁷¹ Pompeii is remarkable for its treasure trove of Roman graffiti, including choice writings such as “Secundus likes to screw boys,” “Atimetus got me pregnant,” “I screwed the barmaid,” “Phileros is a eunuch,” and “Hectice, baby, Mercator says hello to you.”

For example, Sennett discusses the intensity and vitriol of 1750s political pamphlets, offering as examples an English pamphlet which describes its opponents as “whoremasters to the Devil, bastards without an ounce of charity for their fathers,” and a French pamphlet on the fairly tame subject of the floating of a foreign loan whose author calls his enemies “scaly monkeys, slaves of the dung hill on which they gibber.”¹⁷² The pamphlet format in particular is an interesting precursor of uncivil internet forums. From the late sixteenth century, the pamphlet was “small, insignificant, ephemeral, disposable, untrustworthy, unruly, noisy, deceitful, poorly printed, addictive, a waste of time,” and the stereotypical pamphleteer “an idle exploiter of the credulous vulgar” who, by the mid-seventeenth century, had progressed from frivolity to greed and malice.¹⁷³ The pamphlet, like the internet, was pseudonymous, and, like the internet forums which Kingwell despises, rapidly became a veritable cesspool of scurrilous accusations, petty insults, propaganda and fear-mongering.

The point is not that incivility is virtuous or desirable in public speech, but merely that it is age-old and cannot be blamed upon the internet. As with the tendency to withdraw from the theater of public life in search of a more meaningful, private existence that Sennett documents, the internet has merely become the latest vehicle for general trends and tendencies which are centuries or even millennia old. In truth, a condemnation of the incivility of the internet is not a condemnation of the internet but of the general public, which is a profoundly undemocratic and illiberal notion. The reason for the civility of the Roman senate was precisely because it excluded all but those of learning and gentle birth, and concerns over the vulgarity and incivility of the general public are

¹⁷² Sennett, *Fall of Public Man*, 100.

¹⁷³ Joad Raymond, *Pamphlets and Pamphleteering in Early Modern Britain* (Cambridge: Cambridge University Press, 2003), 10.

but a stone's throw from concerns over their right to vote or to be involved in politics at all.

The same can be said for the mechanical skills of writing. Apart from the frequent weakness of their *logos* and the incivility of their composition, a common criticism of internet forums is that their posts are often written by people who seem to verge on functional illiteracy. Once again, it is not the internet that has created this phenomenon. The literacy rate is higher in the modern age than ever before, and as a corollary, the proportion of semi-literate or illiterate members of the general public in earlier eras was much higher. Again, online discursive spaces are radically inclusive, requiring only internet access (such as may be obtained from a cellphone, a public library, or an internet café), and as such contain the discourses of the general public – discourses which, centuries ago, would have been even more poorly written (if the general public could even write at all). While poor command of written language is by no means laudable, it is erroneous to blame the internet for this, and again, to argue that the general public ought to be excluded from political debate because of their lack of writing skills is deeply elitist.

Kingwell also remarks that civility might be cast as a public good, and perhaps the internet fails because the economic rationale behind the distribution of such a public good is broken in some way – the benefits of civil discourse cannot be gated and are free of charge, but if some people in the forum are not interested in civil discourse, then a problem is set up.¹⁷⁴ Gating the forum – however trivially – may offer a solution. For example, despite the name, the web forums on *Something Awful: The Internet Makes You Stupid* are actually a model of civility and productive discussion, and with good reason:

¹⁷⁴ Kingwell, *Unruly Voices*, 163.

an access barrier has been created. Reading the forums is free, but posting requires an account and a nominal fee of a few dollars. The terms of the account are such that repeated incivility is sufficient reason for an account-holder to be banned, without refund.¹⁷⁵ The *modus operandi* of the internet “troll” is to create a free account, use it to cause disruption, and when banned, simply create another. To do so on the Something Awful forums would require a significant cash outlay, and is probably why the forums are pleasantly civil and troll-free. Unfortunately, this does tie accounts to credit cards and other payment methods, but there are solutions to this problem as well – firstly, servers can be programmed not to retain any information linking subscribers to real-world accounts (and, again, computers cannot be interrogated or hacked for information they do not contain), and secondly, cryptocurrencies such as BitCoin may offer a way to conduct transactions online with the anonymity of cash.

The concerns over the incivility and illiteracy exhibited on internet forums are not something that the internet has created or enabled, except inasmuch as it has provided a “voice” for an increasing number of people who would have been unable to express themselves publicly in previous eras. The internet merely allows a broadening of the public sphere and makes it radically inclusive, and although the general public might be frighteningly uncivil and semi-literate to those used to dealing with the educated elite, the fact is that the general public has always been thus – and, if anything, these problems might even be significantly less today than they have been historically. To try and deny the public voice based on the subjective criteria of civility, literacy, and education is profoundly illiberal and undemocratic. Students of American history and civil rights will

¹⁷⁵ Rich Kyanka, “Forum Rules” in *Something Awful: The Internet Makes You Stupid* (2006), retrieved from <http://www.somethingawful.com/d/forum-rules/forum-rules.php> on Feb 21, 2013.

recall that literacy tests were part-and-parcel of the Jim Crow laws that disenfranchised ethnic minorities, especially the poor, and to deny or disdain a means of expression for the general public for similar reasons is unpleasantly reminiscent of them.

I remain convinced of the Kantian assertion that technology is something over which we can assert agency; that we can make technology serve us, and not become servants of it. Perhaps those who feel otherwise are convinced that changes in human nature and human culture are occurring, or have occurred, far faster than they actually have. Sennett's convincing argument is that the changes in human society, in terms of the pace at which we live and the nature of our social interactions, happened a long time before the advent of digital technology, and thus we cannot blame the internet for social changes that may have largely occurred two centuries or more before it existed. If new technology is accelerating the pace of this change, then that also implies that we exert agency over it; we are using technology to move ourselves further in the direction we desire and in the direction we were already moving in, and complaints over this must be seen not as complaints about technology, but complaints about the direction we choose to move in – which, again, seem to be rather elitist. If the majority are not moving in the direction one wishes them to, especially in a subjective matter like culture, is the majority incorrect, or is the dissenting opinion simply of a different personal preference which the dissenter is attempting to impose on an unwilling public?

Furthermore, and in contradiction to the arguments of Ellul and Heidegger who believe that technology and science create a pervasive mindset which it is difficult or impossible to think outside of, the fact that some or many are able to perceive that technological society is not proceeding as they would wish is evidence that it is possible

to think in a non-technological way. Again, this permits agency, and demands the concession that the technological mindset is not so stultifying that we cannot think without it. If it is possible to identify the problems of technology and to think about their solution, then one such problem cannot be that technology makes it impossible to think about its problems and their possible solutions. Technological communication remains an expression of human communication; the tendencies it exhibits are those we would wish for our modes of communication and those we would seek out anyway, and which we have been seeking for some time, if not forever.

If this is the case, then technological communication, including online communication, is a viable or even an exemplary format for discourse. Radically inclusive and open, cosmopolitan and democratic, its weaknesses are not the weaknesses of the technology itself, but the weaknesses of those who participate in communication. The medium is not responsible for the quality of the content; we cannot blame the internet for incivility, ignorance, closed-mindedness, prejudice, or any of the other problems we may think it responsible for. A truly open and inclusive public discourse requires that communication be unrestricted, as Kant demanded; the fact that those who might normally be excluded from communication are able to do so online is symptomatic of its radical inclusiveness. The internet offers enormous potential, but it is a tool and a conduit; we gain nothing by condemning it, and those who criticize it should assess whether their criticisms are of the technology or of those who use it – and whether those criticisms are justified.

Conclusion

From Classical Greek thought in general, and (mostly) from Aristotle in particular, I have outlined the basis of Western pre-modern, pre-scientific-revolution thought on technology, deliberative speech, and the public realm. The Greeks struggled, as we still struggle, with their relationship with technology and the technological mindset. Aristotle argued, much as Ellul did over two millennia later, that the technological mindset and *techne* pursued to the exclusion of other virtues was not a beneficial thing for the overall health of the polity or for the virtue of its citizens. I mention these problems as they occurred to the Greeks because they illustrate a point I wish to emphasize, namely, that technology itself, as a collective term for the artifacts and techniques that we develop to shape and understand the world, is as old as humanity itself. The great change that occurred with the advent of the scientific revolution was not a change in the fundamental nature of technology, but a relatively sudden growth in the pace of technological change due to the discovery that we could develop our technology much better, faster, and easier with rational, methodical, and scientific methods.

We might say, from the Greek perspective, that we had given *techne*, which was understood to mean something like art or craft, an enormous boost by governing it with *episteme* (knowledge, or more specifically, scientific knowledge) to a much greater degree. Engineering and architecture could do much better when performed in accordance with the understanding of physics, for example, and medicine was much more effective when done in the light of the sciences of anatomy and biology, rather than when it was performed haphazardly according to rules discovered through trial and error and through hypotheses untested by the scientific method.

The significant difference in the approach of the Greeks was not that they did not understand or practice *techne* and *episteme*, but that they desired both to be placed under the governance of *phronesis* – prudence, or practical wisdom, to be found not just as the result of science and knowledge (for both knowledge and craft are considered Aristotelian intellectual virtues), but in the cultivation of good character and contemplative wisdom, leading to the ability to make sound judgements and act in the true, eudaimonic interests of oneself and of others. It should be emphasized that *philia*, friendship, is necessary for *phronesis* and for the human experience, and *phronesis* therefore requires not just logic and science, but feeling, character, and emotion. Aristotle requires reason to be the governing part of the soul, but does not dismiss emotion, and believes that such feelings as righteous anger are not only justifiable but are essential to the ideal character. The *phronimos* should feel anger, love, sadness, and so forth.

From these convictions emerge a picture of deliberative speech that is necessarily intimate and possessed not only of *logos*, but of *ethos* and *pathos* as well. Intimacy is required so that we can judge the character of others, and we must judge not only the evidence and the logical arguments of a speaker, but also his character. The corollary of this is that the speaker who wishes to be influential should learn not only how to present strong evidence and logical arguments, but must learn how to appear trustworthy and how to play to or even manipulate the feelings of his audience. It is incorrect to infer that Aristotle necessarily desires or advocates such manipulations, but they are characteristic of public discourse, and this is unavoidable given the nature of the intellectual virtues we are presented with.

A further development from these ideas is the idea of the public realm as something exclusive, rather than as an inclusive space. The intimate and separate nature of the public space requires leisure for participation; the working man does not have time to participate fully in the political life of the *agora*. Furthermore, *phronesis* requires leisure and wealth in order to conduct the life of contemplation that is required; Aristotle admits as much, and even lists gentle birth, a sound body, and even a relatively pleasing physical appearance as probable requirements for *eudaimonia*. It is worth re-emphasizing this inherent elitism in the thought of Aristotle and Plato, and I feel that this problem has never been satisfactorily resolved. Their works are elitist and undemocratic; they despise the “mob” and, although Aristotle opines that the opinion of the many would generally be preferable to that of a few experts, given his elitist tone it is not unreasonable to infer that the “many” refers here to citizens, probably not freedmen, and almost certainly not slaves, women, or the “naturally slavish,” for if some people are incapable of governing themselves, how could their opinions on deeper matters be valid?

Against these ideas come the Enlightenment and the scientific revolution, as exemplified by the thought of Immanuel Kant. The advent of the scientific method offered a new methodology for gathering and applying knowledge, yielding far better results in our inquiries to understand and shape the natural world. Humans have always altered their environment and the use of tools predates the appearance of *homo sapiens* themselves, but the advent of modern science was a gigantic leap in the possibilities for technology. Observing the superiority of the results of the scientific method, which in the space of a few short centuries has answered a great many questions that had remained unanswered (or at least, lacking *correct* answers) for millennia, it is unsurprising that the

Enlightenment turned to *logos*, rationality, and reason as the highest intellectual virtues and discarded instinct, feeling, and emotion. The latter tended to mislead, it was argued; they could be manipulated in the service of deception and frequently led to factual errors in assessing the physical universe in which there was much, we discovered, that was counter-intuitive. Feeling something to be true or evaluating it through contemplation were now judged to be inferior ways of understanding when compared to gathering and verifying empirical evidence and testing hypotheses in a rational and methodical manner.

The Enlightenment and the scientific revolution produced the industrial revolution, as the huge leaps in scientific knowledge gave us the technology to make huge leaps in our economic productivity and our standard of living. This also produced great changes in human society as urbanization changed our heretofore agrarian, rural lifestyle. Cities had always been centres of civilization, but cities grew to unprecedented size and came to encompass the vast majority of the population. Urbanization greatly changed the nature of our public spaces, Sennett argues; from the socially dull and familial rural life we were thrust into the urban medley of increasingly cosmopolitan strangers, and this was the time of the great sea-change in the composition of the public space and the nature of public discourse; it was not a century or more later when electrical and electronic communications first appeared.

When these technologies were developed, they had a deepening and broadening effect: communication was possible with more people and at a faster rate. Kant remarked on the potential of the ship and the camel to allow communication, trade, and exchange over vast differences, and again, the truly revolutionary technologies and developments were those which suddenly thrust us into contact with people we had never previously

communicated with, whether they were in the big cities we were now gathering in, or on other continents whose inhabitants were suddenly becoming accessible to us. The modern public sphere is one which is now radically inclusive and which transcends national, cultural and even linguistic boundaries; it is virtually instantaneous in the speed of its communication, and can mix-and-match between historical formats and media. The internet, more than any other technology before it, exemplifies all of these aspects and is – thus far – the paragon of all the attributes of the modern public space.

Modernity has positive and negative aspects, and the internet reflects both. It enables rapid and instant communication and broadens our social scope enormously, but that change can also feel overwhelming and alienating; much the same feelings could be observed in response to industrialization, urbanization, and globalization. It offers a potentially global reach to anyone with internet access, but it does not act to “purify” the messages conveyed therein: racism and hatred may flourish as much as cosmopolitanism and tolerance. However, the internet does not exacerbate these problems either, and if it enables and eases offensive discourses, it enables and eases their opposites just as much. I contend that to blame these issues on the technology is erroneous when they have existed and festered long before that technology was conceived; incivility and prejudice did not first appear in human interaction with the invention of the modem, and the evidence suggests that, far from living in a particularly uncivil or prejudiced age, we are probably living in the most enlightened, respectful, and tolerant. Those who contend otherwise ought to consider previous eras from the perspective of ethnic and religious minorities, women, homosexuals, the mentally ill, and so forth.

Online anonymity is an aspect of internet technology which can be used for good or ill, just as the rest of its technologies. Anonymity is not Boolean, and those who engineer the best private and anonymous networks acknowledge that the internet cannot offer *absolute* anonymity in combination with a global reach (or any reach at all), but the internet, again, is a great accelerator in this regard. It may not make anonymity absolute, but it can make anonymity stronger and easier than ever before, and it places tools for anonymity in the hands of the individual of such strength that even large and powerful governments cannot defeat them. It is this change that I am concerned with, for while there have always been attempts to remain anonymous yet speak publicly, there have always been human beings and physical spaces or objects involved, weak points which the enemies of free discourse can target. As with much of the internet or post-scientific-revolution technology in general, these internet technologies did not invent anonymity with publicity, nor are they the last word on the subject, but they present a radical change in the power and ease-of-use of anonymizing tools.

Although, as I have said, the internet has not ushered in a particularly uncivil or intolerant era, it would not matter overmuch if it had. One can use anonymity as a shield from which to say things which are unpopular or dangerous, perhaps because they threaten tyrants, or perhaps because they are offensive and vile. I am more interested in how these technologies *may* be used, or *could* be used; all the forum trolls in the world detract little from the potential of a tool that can be used to work against tyranny. The prize, I think, is worth the cost, particularly if internet trolls are a symptom rather than a problem in and of themselves, and if they would exist anyway, when anti-social, scurrilous, insulting, denigrating and irreverent speech has existed as long as speech itself

(for example, the 18th-century pamphlet). Even if the internet had produced a great increase in incivility and intolerance, that would not mean that this could not be reversed. Over time, human civilization seems to be trending towards cosmopolitanism, reason, and republicanism, not away from it.

In this, I am hopeful for the future of politics; like Kant, I believe that we are developing better politics, and becoming more inclusive, republican, humane, tolerant, and accepting, and I believe that technology is helping us along that road. I think Kant was correct in this, and I think that his philosophy is more important to these goals and, dare I opine, more serving of them than that of the ancients, no matter how much they may be recruited to moderate the “problems” of modern technology. If Kant’s assessment that technology is the servant and not the master of human destiny is true, the degree of moderation required would be little, at most.

A stumbling-block in Kant’s philosophy is the problem of rebellion and publicity, but I believe that internet technologies have largely untied that knot. Kant’s maxim that other-regarding actions are wrong if they are incompatible with wide public knowledge forbids much of what we would probably define as immoral, unlawful, or anti-social (theft, fraud, murder, etc.), but unfortunately, Kant acknowledges that it also forbids dissent against tyrants. Arguably, it may be worth forbidding violent revolution so as to avoid the uncertainty and anarchy that it might usher in, as Kant argues (violent revolutions famously led to an intensifying of tyranny in France and Russia), but without dissent, how can tyranny be undone even by a gradual and peaceful process that will be better suited to producing a stable republic? If dissent cannot be public then it is wrong and forbidden, but if secret dissent is forbidden and public dissent is self-destructive, we

essentially forgo the right to determine our own political destiny without tyranny and we throw ourselves on the mercy of teleology alone.

Without violating or modifying the maxim and throwing out its benefits, the solution is to find a way to dissent in public while remaining anonymous. If one can speak publicly, then one is not in violation of the maxim, but anonymity serves as a shield to protect the vulnerable from the attention of tyrants. A dissenter could always speak publicly, of course, but to be positively identifiable as a dissenter in a tyranny is to invite one's own destruction and the destruction of the dissenting movement. The possibility of internet technologies to reach an unprecedentedly broad public while maintaining an unprecedentedly high degree of anonymity represents the greatest potential to upset this dynamic yet seen. Not only can dissenters now enjoy publicity from behind the shield of anonymity, but those who would silence them are now forced to violate the Kantian publicity maxim themselves, for they must now resort to infiltration and spying, which Kant explicitly condemns.

Technology has provided a solution to this paradox. We do not need to throw Kant out, as it were, to proceed with his quest for universal republicanism, and we can now actively work to remove tyrannies and replace them with republics using the technology we have provided ourselves with, rather than having to wait passively for them to end. We can take a more active role in shaping our political destiny rather than trusting to teleology alone. Technology has resolved this paradox in Kantian thought, and whether or not it presents us with problems to be overcome, in this instance it has presented us with a solution to a heretofore most troublesome problem.

Bibliography

- Akdeniz, Yaman. "Anonymity, Democracy and Cyberspace." *Social Research* 69, no. 1 (2002): 223-237.
- Arendt, Hannah. *The Human Condition*, 2nd ed. Chicago: University of Chicago Press, 1998.
- Aristotle. *Nichomachean Ethics*. Translated by Robert C. Bartlett and Susan D. Collins. Chicago: The University of Chicago Press, 2011.
- . *On the Art of Poetry*. Translated by Ingram Bywater. Oxford: Clarendon, 1962.
- . *On the Heavens*. Translated by J.L. Stocks. Adelaide: The University of Adelaide Library, 2013.
- . *Posterior Analytics*. Translated by G.R.G. Mure. Adelaide: The University of Adelaide Library, 2013.
- . *Rhetoric*. Translated by W. Rhys Roberts. Adelaide: The University of Adelaide Library, 2013.
- . *The History of Animals*. Translated by D'Arcy Wentworth Thompson. Adelaide: The University of Adelaide Library, 2013.
- . *The Politics*. Translated by T.A. Sinclair. London: Penguin Classics, 1992.
- Augustine. *The Letters of St. Augustine*. Edited by W.J. Sparrow-Simpson. New York: Macmillan, 1919.
- Barber, Benjamin. *Jihad vs. Mcworld: Terrorism's Challenge to Democracy*. New York: Ballantine, 1996.
- Benhabib, Seyla. "Models of Public Space: Hannah Arendt, the Liberal Tradition, and Jurgen Habermas." In *Habermas and the Public Sphere*, edited by Craig Calhoun, 73-98. Cambridge, MA: MIT Press, 1992.
- Bentham, Jeremy. "Chapter II: Of Publicity." In *The Works of Jeremy Bentham*, published under the Superintendence of his Executor, John Bowring. Edinburgh: William Tait, 1838-1843.
- . "Panopticon; or The Inspection-House." In *The Panopticon Writings*, edited by Miran Bozovic, 29-95. London: Verso, 1995.
- Bleasdale, Ruth. "Class Conflict on the Canals of Upper Canada in the 1840s." *Labour/Le Travailleur* 7 (1981), 9-39.

- Bradshaw, Leah. *Acting and Thinking: The Political Thought of Hannah Arendt* (Toronto: University of Toronto Press, 1989).
- Brown, Wendy. *Regulating Aversion: Tolerance in the Age of Identity and Empire*. Princeton, NJ: Princeton University Press, 2009.
- Buchstein, Hubertus. "Bytes that Bite: The Internet and Deliberative Democracy." *Constellations* 4, no. 2 (1997): 248-263.
- Clarke, Ian, Scott G. Miller, Theodore W. Hong, Oskar Sandberg. "Protecting Free Expression Online with Freenet." In *IEEE Internet Computing* Jan-Feb 2002; 40-49.
- Davenport, David. "Anonymity on the Internet: Why the Price May Be Too High." *Communications of the ACM* 45, no. 4 (2002): 33-35.
- Dean, Jodi. "Cybersalons and Civil Society: Rethinking the Public Sphere in Transnational Technoculture." *Public Culture* 13, no. 2 (2001): 243-265.
- . *Publicity's Secret: How Technoculture Capitalizes on Democracy*. Ithaca, NY: Cornell University Press, 2002.
- Dinev, T., P. Hart, M. Mullen. "Internet privacy concerns and beliefs about government surveillance – an empirical investigation." In *Journal of Strategic Information Systems* 17 (2008), 214-233.
- Ellis, Elizabeth. "Introduction." In *Kant's Political Theory: Interpretations and Applications*, edited by Elizabeth Ellis, 1-24. University Park, PA: The Pennsylvania State University Press, 2012.
- Ellul, Jacques. *The Technological Society*. Translated by John Wilkinson. New York: Vintage, 1964.
- Foucault, Michel. "Panopticism." In *The Foucault Reader*, ed. Paul Rabinow, 206-213. New York: Vintage, 2010.
- Fukuyama, Francis. *Our Posthuman Future: Consequences of the Biotechnology Revolution*. New York: Farrar, Straus and Giroux, 2002.
- Grant, George. "In Defense of North America." In *Technology and Empire: Perspectives on North America* 13-40. Toronto: House of Anansi, 1969.
- Habermas, Jürgen. "Kant's Idea of Perpetual Peace with The Benefit of Two Hundred Years' Hindsight." In *Perpetual Peace: Essays on Kant's Cosmopolitan Ideal*, edited by James Bohman & Matthias Lutz-Bachmann, 113-153. Cambridge: MIT Press, 1997.

—. "Popular Sovereignty as Procedure." Appendix I to *Facts and Norms*, translated by William Rehg, 463-90. Cambridge, MA: MIT Press, 1996.

—. *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*. Translated by Thomas Burger & Frederick Lawrence. Cambridge, MA: MIT Press, 1989.

—. "Three Normative Models of Democracy: Liberal, Republican, Procedural." In *Questioning Ethics: Contemporary Debates in Philosophy*, edited by Richard Kearney & Mark Dooley, 135-144. New York: Routledge, 1999.

Harvey, David. *The Enigma of Capital*. Oxford: Oxford University Press, 2010.

Heidegger, Martin. "Modern Science, Metaphysics, and Mathematics." In *Martin Heidegger: Basic Writings*, edited by David Farrell Krell, 267-306. London: Harper Perennial, 1993.

—. "The Origin of the Work of Art." In *Martin Heidegger: Basic Writings*, edited by David Farrell Krell, 139-212. London: Harper Perennial, 1993.

—. "The Question Concerning Technology." In *Martin Heidegger: Basic Writings*, edited by David Farrell Krell, 307-342. London: Harper Perennial, 1993.

—. "What is Metaphysics?" In *Martin Heidegger: Basic Writings*, edited by David Farrell Krell, 89-110. London: Harper Perennial, 1993.

Hobbes, Thomas. *Leviathan*. Adelaide: The University of Adelaide Library, 2012.

John Stuart Mill. *Utilitarianism*. Adelaide: The University of Adelaide Library, 2012.

Kagan, Shelly. *Normative Ethics*. Boulder, CO: Westview Press, 1998.

Kant, Immanuel. "An Answer to the Question: What is Enlightenment?" In *Kant: Political Writings*, edited by Hans Reiss, translated by H.B. Nisbet, 54-60. Cambridge: Cambridge University Press, 1991.

—. "Idea for a Universal History with a Cosmopolitan Purpose." In *Kant: Political Writings*, edited by Hans Reiss, translated by H.B. Nisbet, 41-53. Cambridge: Cambridge University Press, 1991.

—. "Perpetual Peace: A Philosophical Sketch." In *Kant: Political Writings*, edited by Hans Reiss, translated by H.B. Nisbet, 93-130. Cambridge: Cambridge University Press, 1991.

—. "The Metaphysics of Morals." In *Kant: Political Writings*, edited by Hans Reiss, translated by H.B. Nisbet, 131-175. Cambridge: Cambridge University Press, 1991.

—. *Anthropology from a Pragmatic Point of View*, edited by Robert B. Loudon & Manfred Kuehn. Cambridge: Cambridge University Press, 2006.

—. *Groundwork of the Metaphysics of Morals*. Edited by Mary Gregor. Cambridge: Cambridge University Press, 2002.

Karim, Karim H. "Cyber-utopia and the Myth of Paradise: Using Jacques Ellul's Work on Propaganda to Analyse Information Society Rhetoric." In *Information, Communication & Society* 4:1 (2001), 113-134.

Kingwell, Mark. *Unruly Voices: Essays on Democracy, Civility, and the Human Imagination*. Windsor, ON: Biblioasis, 2012.

Kravets, David. "Pirate Bay Says it Can't be Sunk, Servers Scattered Worldwide." Wired.com, 2008-02-01, <http://www.wired.com/threatlevel/2008/02/the-pirate-bay/> (accessed 2011-04-05).

Kyanka, Rich. "Forum Rules." In *Something Awful: The Internet Makes You Stupid* (2006), retrieved from <http://www.somethingawful.com/d/forum-rules/forum-rules.php> on Feb 21, 2013.

Laursen, John Christian. "Kant, Freedom of the Press, and Book Piracy." In *Kant's Political Theory: Interpretations and Applications*. Edited by Elizabeth Ellis, 225-238. University Park, PA: The Pennsylvania State University Press, 2012.

Lutz, Deborah. *Pleasure Bound: Victorian Sex Rebels and the New Eroticism*. New York: W.W. Norton, 2011.

Marcus, Steven. *The Other Victorians: A Study of Sexuality and Pornography in Mid-Nineteenth-Century England*. Livingston, NJ: Transaction Publishers, 2008.

Marquardt, James J. "Kant and Bentham on Publicity: Implications for Transparency and the Liberal Democratic Peace." Prepared for delivery at the 102nd Annual Meeting of the American Political Science Association, Philadelphia, PA, August 30-September 3, 2006.

Mathes, Eugene W., Thomas A. Guest. "Anonymity and Group Antisocial Behavior." *The Journal of Social Psychology* 100 (1976): 257-262.

Maynard, Jean. *Technocracy*. Translated by Paul Barnes. New York: Free Press, 1969.

McCloskey, H.J. "An Examination of Restricted Utilitarianism" in *The Philosophical Review* 66, no. 4 (1957), 466-485.

Morio, Hiroaki & Christopher Buchholz. "How Anonymous Are You Online? Examining Online Social Behaviours From a Cross-Cultural Perspective." *AI & Soc* 23 (2009): 297-307.

Nogami, Tatsuya. "Reexamination of the association between anonymity and self-interested unethical behaviour in adults." *The Psychological Record* 59 (2009): 259-272.

Nussbaum, Martha C. "Kant and Cosmopolitanism," in *Perpetual Peace: Essays on Kant's Cosmopolitan Ideal*, edited by James Bohman & Matthias Lutz-Bachmann, 25-57. Cambridge, MA: MIT Press, 1997.

Ou, George. "Is encryption really crackable?" ZD Net, April 30, 2006.
<http://www.zdnet.com/blog/ou/is-encryption-really-crackable/204> (accessed 2011-04-07).

Plato. *Charmides*. Translated by Benjamin Jowett. Project Gutenberg, 2008.

—. *Gorgias*. Translated by Benjamin Jowett. Adelaide: The University of Adelaide Library, 2012.

—. *The Republic*. Translated by Allan Bloom. New York: Basic Books, 1991.

—. *The Statesman*. Translated by Benjamin Jowett. Adelaide: The University of Adelaide Library, 2012.

Plutarch. *The Fall of the Roman Republic*, translated by Rex Warner, edited by Robin Seager. London: Penguin Classics, 1972.

Raymond, Joad. *Pamphlets and Pamphleteering in Early Modern Britain*. Cambridge: Cambridge University Press, 2003.

Richardson, Joanna. *La Vie Parisienne, 1852-1870*. New York: Viking, 1971.

Ripstein, Arthur. "Kant and the Circumstances of Justice," in *Kant's Political Theory: Interpretations and Applications*, edited by Elizabeth Ellis, 42-73. University Park, PA: The Pennsylvania State University Press, 2012.

Rowland, Diane. "Privacy, Freedom of Expression and CyberSLAPPs: Fostering Anonymity on the Internet?" *International Review of Law, Computers and Technology* 17, no. 3 (2003): 303-312.

Semple, Janet. *Bentham's Prison: A study of the Panopticon penitentiary*. Oxford: Clarendon, 1993.

Sennett, Richard. *The Fall of Public Man*. New York: Vintage, 1978.

Shakespeare, William. *Julius Caesar*. Edited by W.J. Craig. London: Oxford University Press, 1914.

Solomon, Henry, Linda Zener Solomon, Maria M. Arnone, Bonnie J. Maur, Rosina M. Reda, Esther O. Roth. "Anonymity and Helping." *The Journal of Social Psychology* 113 (1981): 37-43.

Standage, Tom. *An Edible History of Humanity*. New York: Walker, 2009.

Stout, Dietrich, Sileshi Semaw, Michael J. Rogers, Dominique Cauche. "Technological variation in the earliest Oldowan from Gona, Afar, Ethiopia." In *Journal of Human Evolution* 58 (2010), 474-491.

Tabachnick, David. *The Great Reversal: How We Let Technology Take Control of the Planet*. Toronto: University of Toronto Press, 2013.

Thomas, Charlotte. "Globalization, Technology and the Authority of Philosophy." In *Globalization, Technology, and Philosophy*, edited by David Tabachnick and Toivo Koivukosi, 221-234. Albany, NY: SUNY Press, 2012.

Tor Project, The. "Tor: Overview." retrieved from <https://www.torproject.org/about/overview.html.en> on March 12, 2013.

Triadafilopoulos, Triadafilos. "Politics, Speech, and the Art of Persuasion: Toward an Aristotelian Conception of the Public Sphere." *Journal of Politics* 61, no. 3 (1999): 741-757.

Whitehead, Alfred North. *Process and Reality: An Essay in Cosmology*. New York: Free Press, 1979.

Woodruff, Paul. "Aristotle on Mimesis." In *Essays on Aristotle's Poetics*, ed. Amelie Oksenberg Rorty (Princeton, NJ: Princeton University Press, 1992), 73-96.

Wozniak, Steve. Interview by RT, August 14, 2012. Retrieved from <https://www.youtube.com/watch?v=LJnghGBBP2Q> on November 20, 2012.

Appendix I: Internet firm mergers and acquisitions

Since many corporate mergers and acquisitions are conducted in secrecy (apropos of this thesis), detailed information concerning many such transactions is unknown, such as the price or the purpose (tech firms are often bought to acquire licenses and patents, technology, or talented workers, but which – if any – of these has motivated the purchase is not often made clear to the public). As such, most of the sources for this appendix are news websites, and many carry the caveat that the reports are based on rumours, insider information, and leaks. These reports may not be reliable. They are presented here for interest pertaining to a point made in Part III.

List of Acquisitions by Amazon.com

Date	Company	Value (USD)	References
Mar, 2013	Goodreads	—	"Amazon Acquires Social Reading Site Goodreads, Which Gives The Company A Social Advantage Over Apple". <i>SF Gate</i> . Retrieved 2012-10-22.
May, 2012	Kiva Systems	\$775m	"Amazon.Com Inc, SEC Form 8-K.". <i>U.S. Securities and Exchange Commission</i> . Retrieved 2013-12-21.
Feb, 2012	TeachStreet	—	"Exclusive: Amazon.com buys TeachStreet". <i>GeekWire</i> . Retrieved 2013-12-21.
Jul, 2011	The Book Depository	—	"Booksellers fear 'stranglehold' as Amazon snaps up British rival The Book Depository". <i>The Guardian</i> . Retrieved 2013-12-21.
Jul, 2011	Pushbutton	—	"Amazon Acquires Pushbutton". <i>Amazon</i> . Retrieved 2013-12-21.
Jan, 2011	LoveFilm	£200m	"Amazon To Buy UK Rental Firm Lovefilm". <i>News.sky.com</i> . Retrieved 2013-12-21.
Nov, 2010	Diapers.com	\$550m	"Amazon.com to Acquire Diapers.com and Soap.com". <i>Business Wire</i> . Retrieved 2013-12-21.
Jun, 2010	Woot	—	"BREAKING: Woot To Be Acquired By Amazon, Then Left To Amuse Ourselves". <i>Woot.com</i> . Retrieved 2011-12-05.
Jul, 2009	Zappos	\$1.2b	"Amazon Closes Zappos Deal, Ends Up Paying \$1.2 Billion". <i>TechCrunch</i> . Retrieved 2010-01-28.
Apr, 2009	Lexcycle	—	"Amazon Acquires Lexcycle". <i>BusinessWeek</i> . Retrieved 2009-04-27.
Oct, 2008	Reflexive Entertainment	—	"Amazon Buys Reflexive Entertainment, Looks to Distribute Casual Games". <i>Xconomy</i> . Retrieved 2013-12-21.
Aug, 2008	AbeBooks	—	"Book Sites Unite". <i>Internet News</i> . Retrieved 2007-10-30.
Aug, 2008	Shelfari	—	"Amazon Acquires Shelfari: Moves To Corner Book-Centric Social Networks". <i>TechCrunch</i> . Retrieved 2008-08-25.
Jul, 2008	Box Office Mojo	—	"Amazon's IMDb movie trivia site acquires rival Box Office Mojo". <i>TechFlash</i> . Retrieved 2008-12-17.
Jan, 2008	Audible	\$300m	"Amazon to buy Audible for \$300 million". <i>Reuters</i> . Retrieved 2013-12-21
Jan, 2008	Withoutabox	—	"IMDB acquiring Without A Box". <i>Bizjournals.com</i> . Retrieved 2013-12-21.
May, 2007	Digital Photography Review	—	"Amazon.com acquires dpreview.com". <i>Digital Photography Review</i> . Retrieved 2013-12-21.

Date	Company	Value (USD)	References
Aug, 2004	Joyo.com	\$75m	"Amazon Acquires Chinese Joyo". <i>Internet News</i> . Retrieved 2013-12-21.
2001	CDNow	—	"Bertelsmann to Let Amazon.com Run CDNow". <i>The New York Times</i> . Retrieved 2013-12-21.
1999	Alexa	\$250m	"E-commerce loves Street: Critical Path plans encore". <i>San Francisco Business Times</i> . Retrieved 2013-11-05
Aug, 1998	PlanetAll	—	"Amazon.com buys Junglee, PlanetAll". <i>Silicon Valley Business Journal</i> . Retrieved 2013-12-21.
1998	Internet Movie Database (IMDb)	—	"INTERNET BOOKSELLER AMAZON.COM ANNOUNCES ACQUISITION OF UNITED KINGDOM COMPANY THE INTERNET MOVIE DATABASE LTD.". <i>IMDb via PR Newswire Europe</i> . Retrieved 2007-01-15.

List of Acquisitions by Apple, Inc.

Date	Company	Value (USD)	References
Dec, 2013	BroadMap	—	"Apple Did Indeed Acquire BroadMap and Catch Earlier This Year". <i>All Things Digital</i> . Retrieved 2013-12-23.
Dec, 2013	Catch.com	—	"Apple Did Indeed Acquire BroadMap and Catch Earlier This Year". <i>All Things Digital</i> . Retrieved 2013-12-23.
Dec, 2013	Topsy	\$200m	"Apple Acquires Social Analytics Firm Topsy for \$200 Million". <i>MacRumors</i> . Retrieved 2013-12-03.
Nov, 2013	PrimeSense	\$345m	"Apple Confirms Acquisition of 3-D Sensor Startup PrimeSense". <i>All Things Digital</i> . Retrieved 2013-11-24.
Oct, 2013	Cue	\$50m	"Apple acquires personal assistant app Cue for at least \$35M [u]". <i>AppleInsider</i> . Retrieved 2013-10-03.
Aug, 2013	AlgoTrim	—	"Apple Reportedly Acquires Swedish Firm AlgoTrim, A Company That Does Mobile Media And Data Compression". <i>TechCrunch</i> . Retrieved 2013-08-28.
Aug, 2013	Embark	—	"Exclusive: Apple Buys (Another) Map App, Embark". <i>Jessica Lessin</i> . Retrieved 2013-08-22.
Aug, 2013	Matcha	—	"Apple acquires Matcha.tv". <i>VentureBeat</i> . Retrieved 2013-08-13.
Aug, 2013	Passif Semiconductor	—	"Apple acquires wireless chip maker Passif Semiconductor". <i>Engadget</i> . Retrieved 2013-08-01.
Jul, 2013	Locationary	—	"Apple Acquires Local Data Outfit Locationary". <i>All Things Digital</i> . Retrieved 2013-07-19.
Jul, 2013	HopStop.com	—	"Apple Said to Buy HopStop, Pushing Deeper Into Maps". <i>Bloomberg</i> . Retrieved 2013-07-19.
Mar, 2013	WiFiSlam	\$20m	"Apple Acquires Indoor Location Company WifiSLAM". <i>Wall Street Journal</i> . Retrieved 2013-03-23.
Sep, 2012	Particle	—	"Apple snaps up celebrity-backed Web app firm Particle". <i>CNet</i> . Retrieved 2012-10-16.
Jul, 2012	AuthenTec	\$356m	"Apple buys patent-rich security firm Authentec for \$356 million". <i>The Verge</i> . Retrieved 2012-07-27.
Jun, 2012	Redmatica	—	"Apple-acquired music editing software firm Redmatica closes; product support will end on 12 June". <i>The Next Web</i> . Retrieved 2012-06-08.
Feb, 2012	Chomp	\$50m	"Apple Is Said to Pay About \$50 Million for Search Startup Chomp". <i>Bloomberg Businessweek</i> . Retrieved 2011-02-23.
Dec, 2011	Anobit	\$390m	"Apple picks up Anobit for Flash Memory". <i>Slashgear</i> . Retrieved December 20, 2011.
Aug, 2011	C3 Technologies	\$267m	"Apple acquired mind-blowing 3D mapping company C3 Technologies, looking to take iOS Maps to the next level". <i>9to5Mac</i> . Retrieved October 31, 2011.

Date	Company	Value (USD)	References
Sep, 2010	Polar Rose	\$29m	"Apple acquires face-recognition firm Polar Rose". <i>Venture Beat</i> . Retrieved October 18, 2011.
Sep, 2010	IMSense	—	"Apple Buys Imsense Ltd.". <i>Silicon Tap</i> . Retrieved October 18, 2011.
Jul, 2010	Poly9	—	"Apple acquires online mapping company Poly9 - report". <i>Apple Insider</i> . Retrieved August 1, 2010.
Apr, 2010	Intrinsity	\$121m	"Apple Buys Intrinsity". <i>New York Times</i> . Retrieved April 27, 2010.
Apr, 2010	Siri	—	"Apple Moves Deeper Into Voice-Activated Search With Siri Buy". <i>Wall Street Journal</i> . Retrieved April 28, 2010.
Jan, 2010	Quattro Wireless	\$275m	"Apple acquires Quattro Wireless". <i>Reuters</i> . Retrieved February 19, 2010.
Dec, 2009	Lala.com	\$17m	"Apple Inc acquires LaLa.com". <i>TechCrunch</i> . Retrieved 2009-12-43.
Jul, 2009	Placebase	—	"Apple purchased Placebase in July to replace Google Maps?". <i>ComputerWorld</i> . Retrieved 2009-09-30.
Apr, 2008	P.A. Semi	\$278m	"Apple acquires low-power chip designer PA Semi". <i>CNet</i> . Retrieved 2010-04-09.
Dec, 2006	Proximity	—	"Apple Acquires Proximity". <i>Mac Observer</i> . Retrieved 2008-10-21.
Oct, 2006	Silicon Color	—	"Apple Computer Inc acquires Silicon Color Inc.". <i>Thomson Financial</i> . Retrieved 2008-10-21.
Apr, 2005	FingerWorks	—	"Inside the multitouch FingerWorks tech in Apple's tablet". <i>AppleInsider</i> . Retrieved 2013-05-04.
Mar, 2005	Schemasoft	—	"Apple swallows SchemaSoft". <i>CNET</i> . Retrieved 2010-01-23.
Jul, 2002	Emagic	\$30m	"Apple Computer Inc acquires Emagic Soft-und Hardware GmbH". <i>Thomson Financial</i> . Retrieved 2008-10-21.
Jun, 2002	Prismo Graphics	—	"Apple acquires technologies from Prismo Graphics". <i>PCWorld</i> . Retrieved 2013-12-21.
Jun, 2002	Propel Software	—	"Apple Computer Inc acquires Propel Software Corp". <i>Thomson Financial</i> . Retrieved 2008-10-21.
Jun, 2002	Silicon Grail Corp-Chalice	—	"Apple Computer Inc acquires Silicon Grail Corp-Chalice from Silicon Grail Corp". <i>Thomson Financial</i> . Retrieved 2008-10-21.
Apr, 2002	Zayante	\$13m	"Apple Computer Inc acquires Zayante Inc.". <i>Thomson Financial</i> . Retrieved 2008-10-21.
Feb, 2002	Nothing Real	\$15m	"Apple Computer Inc acquires Nothing Real LLC". <i>Thomson Financial</i> . Retrieved 2008-10-21.
Dec, 2001	PowerSchool	\$62m	"Apple Computer Inc acquires PowerSchool Inc.". <i>Thomson Financial</i> . Retrieved 2008-10-21.

Date	Company	Value (USD)	References
Jul, 2001	Spruce Technologies	—	"Apple Computer Inc acquires Spruce Technologies Inc from JBIS Holdings Inc.". <i>Thomson Financial</i> . Retrieved 2008-10-21.
May, 2001	bluebuzz	—	"Network Innovations Corp acquires bluebuzz.com Inc.". <i>Thomson Financial</i> . Retrieved 2008-10-21 (Apple Inc. is the ultimate parent of Network Innovations Corp).
2001	Bluefish Labs	—	<i>Bluefish Labs</i> . Retrieved from http://archive.is/IfOQx on 2013-12-21.
Q4, 2000	SoundJam MP	—	"Apple Acquires SoundJam, Programmer for iMusic". <i>AppleInsider</i> . Retrieved 2012-04-23.
Apr, 2000	Astarte-DVD Authoring Software	—	"Apple Computer Inc acquires Astarte-DVD Authoring Software from Astarte GmbH". <i>Thomson Financial</i> . Retrieved 2008-10-21.
Jan, 2000	NetSelector	—	"Apple Computer Inc acquires NetSelector". <i>Thomson Financial</i> . Retrieved 2008-10-21.
Nov, 1999	Raycer Graphics	\$15m	"Apple Computer Inc acquires Raycer Graphics". <i>Thomson Financial</i> . Retrieved 2008-10-21.
Jan, 1999	Xemplar Education	\$5m	"Apple Computer Inc acquires remaining interest in Xemplar Education Ltd from Morgan Stanley". <i>Thomson Financial</i> . Retrieved 2008-10-21.
Sep, 1997	Power Computing-Clone-Making	\$100m	"Apple Computer Inc acquires Power Computing-Clone-Making from Power Computing Corp". <i>Thomson Financial</i> . Retrieved 2008-10-21.
Feb, 1997	NeXT	\$404m	"Apple Computer Inc acquires NeXT Computer Inc.". <i>Thomson Financial</i> . Retrieved 2008-10-21.
Jan, 1989	Coral Software	—	"Apple Computer Inc acquires Coral Software Corp". <i>Thomson Financial</i> . Retrieved 2008-10-21.
Jul, 1988	Nashoba Systems	—	"Clarix Corp(Apple Computer) acquires Nashoba Systems Inc.". <i>Thomson Financial</i> . Retrieved 2008-10-21.
Jun, 1988	Styleware	—	"Clarix Corp(Apple Computer) acquires Styleware Inc.". <i>Thomson Financial</i> . Retrieved 2008-10-21.
Jun, 1988	Orion Network Systems	—	"Apple Computer Inc acquires Orion Network Systems Inc.". <i>Thomson Financial</i> . Retrieved 2008-10-21.
Mar, 1988	Network Innovations	—	"Apple Computer Inc acquires Network Innovations Corp". <i>Thomson Financial</i> . Retrieved 2008-10-21.

List of Acquisitions by eBay

Date	Company	Value (USD)	References
Oct, 2013	Shutl	—	"eBay Acquires UK Startup Shutl To Change The Ecommerce Game With One Hour Delivery". <i>TechCrunch</i> . Retrieved October 22, 2013.
Sep, 2013	Braintree	\$800m	"EBay Buys Braintree, a Payments Start-Up". <i>The New York Times</i> . Retrieved September 26, 2013.
Sep, 2013	Decide.com	—	"Online Shopping Research And Price Comparison Site Decide.com Acquired By eBay". <i>CEOWORLD Magazine</i> . Retrieved 2013-12-21.
Sep, 2012	Svpply	—	"eBay Acquires Style-Focused, Social, Curated Shopping Site Svpply". <i>TechCrunch</i> . Retrieved 2013-12-21.
Dec, 2011	Zvents	—	"Ebay-owned Stubhub acquires Zvents for event listings.". <i>VentureBeat</i> . Retrieved 2013-12-21.
Sep, 2011	The Gifts Project	—	"eBay buys Israeli start up The Gifts Project: The price is estimated to be in the tens of millions of dollars.". <i>Globes</i> . Retrieved 2013-12-21.
Sep, 2011	Hunch	\$80m	"eBay Buys Recommendation Service Hunch To Improve Buying, Selling.". <i>TechCrunch</i> . Retrieved 2013-12-21.
Jul, 2011	Zong	\$240m	"eBay Stacking Up the Acquisitions". <i>Forbes</i> . Retrieved 2013-12-21.
Mar, 2011	GSI Commerce	\$2.4b	"EBay to Buy GSI Commerce for \$2.4B". <i>PCWorld</i> . Retrieved October 22, 2013.
Mar, 2011	Where, Inc.	\$135m	"EBay to buy Boston software firm". <i>The Boston Globe</i> . Retrieved October 22, 2013.
Dec, 2010	Milo.com	\$75m	"Confirmed: Ebay Acquires Milo For \$75 Million. Investors Make A Killing." <i>TechCrunch</i> . Retrieved 2013-12-21.
Jun, 2010	RedLaser	\$10m	"eBay Acquires RedLaser: The Leading Barcode-Scanning iPhone Application". <i>eBay</i> . Retrieved 2010-11-09.
Mar, 2010	Magento	\$225m	"A Year Later, Welcome eBay to the Magento Family!". <i>Magento Commerce</i> . Retrieved 2011-02-15.
Jan, 2009	Positronic Inc.	—	"eBay Acquires Positronic, Inc.". <i>eBay</i> . Retrieved 2010-11-09.
Oct, 2008	Bill Me Later	\$1.2b	"eBay Buys Bill Be Later". <i>TechCrunch</i> . Retrieved 2008-10-06.
Oct, 2008	dba.dk & bilbasen.dk	\$390m	"eBay Buys Classifieds Businesses". <i>eBay</i> . Retrieved 2008-10-06.
Jan, 2008	Fraud Sciences	\$169m	"eBay's Paypal acquires Israel's Fraud Sciences for \$169 million, 12 times the return for investors". <i>VC Cafe</i> . Retrieved 2013-12-21.
May, 2007	StumbleUpon	\$75m	"eBay Investor Message". <i>eBay</i> . Retrieved 2007-09-10.

Date	Company	Value (USD)	References
May, 2007	GittiGidiyor	\$217.5m	"eBay Acquires Stake in Turkey's GittiGidiyor.com". <i>eBay</i> . Retrieved 2008-04-18.
Jan, 2007	StubHub	\$310m	"eBay To Acquire Online Tickets Marketplace StubHub". <i>eBay</i> . Retrieved 2008-04-18.
Apr, 2006	Tradera	\$48m	"eBay Acquires Sweden's Tradera.com". <i>eBay</i> . Retrieved 2008-04-18.
Mar, 2006	Meetup.com	\$10m	"eBay's Affinity for Meetup.com". <i>BusinessWeek</i> . Retrieved 2008-04-18.
Sep, 2005	Skype Limited	\$2.6b	"EBay to Acquire Internet Phone Leader". <i>The Washington Post</i> . Retrieved 2008-04-18.
Jun, 2005	OpusForum.org	—	"eBay's Kijiji Acquires German Classifieds Web Site opusforum". <i>Internet Retailer</i> . Retrieved 2008-04-18.
Jun, 2005	Shopping.com	\$620m	"EBay buys Shopping.com for \$620 million". <i>The Industry Standard</i> . Retrieved 2008-04-18.
May, 2005	Gumtree	—	"Ebay buys Gumtree.com". <i>Manchester Evening News</i> . Retrieved 2008-04-18.
May, 2005	Loquo	—	"eBay's Kijiji Acquires Classifieds Web Sites". <i>Business Wire</i> . 2005-05-18. Retrieved 2008-04-18.
Dec, 2004	Rent.com	\$415m	"eBay to Acquire Rent.com". <i>eBay</i> . 2004-12-16. Retrieved 2008-04-18.
Nov, 2004	Marktplaats.nl	\$290m	"eBay Acquires Dutch Company Marktplaats.nl". <i>eBay</i> . 2004-11-10. Retrieved 2008-04-18.
Aug, 2004	Craigslist	\$13.5m	"EBay buys 25% stake in Craigslist". <i>San Francisco Chronicle</i> . Retrieved 2008-04-18.
Jun, 2004	Baazee.com	\$50m	"eBay to Acquire India's Baazee.com". <i>eBay</i> . Retrieved 2007-07-08.
Jan, 2004	mobile.de	\$152m	"eBay to Acquire Germany's mobile.de". <i>eBay</i> . Retrieved 2012-07-18.
Jul, 2003	EachNet	\$150m	"eBay Acquires Chinese Shopping Site EachNet". <i>InterNetNews</i> . Retrieved 2008-04-18.
Jan, 2003	CARad.com	—	"eBay Motors Announces Acquisition Agreement and New Strategic Relationship". <i>eBay</i> . Retrieved 2007-07-08.
Jul, 2002	PayPal	\$1.5b	"eBay picks up PayPal for \$1.5 billion". <i>CNET News</i> . Retrieved 2008-04-18.
Mar, 2001	iBazar	\$66m	"eBay To Acquire Ibazar S.A.". <i>eBay</i> . Retrieved 2008-04-18.
Jan, 2001	Internet Auction Co.	\$120m	"eBay to Acquire Majority Stake in Korea's Internet Auction Co.". <i>eBay</i> . Retrieved 2008-04-18.
Dec, 2000	Precision Buying Service	—	"eBay Acquires Deja.com's Technology". <i>Internet News</i> . Retrieved 2007-01-05.

Date	Company	Value (USD)	References
Jun, 2000	Half.com	\$318m	"eBay buying Half.com in stock deal". <i>CNET News</i> . Retrieved 2008-04-18.
Oct, 1999	Blackthorne	—	"eBay Blackthorne: Frequently Asked Questions". <i>eBay</i> . Retrieved 2013-12-21.
Jun, 1999	Alando	\$43m	"eBay wins German bid". <i>CNN</i> . Retrieved 2008-04-18.
May, 1999	Billpoint	—	"eBay acquires two firms". <i>CNET News</i> . Retrieved 2008-04-18.
May, 1999	Kruse International	—	"eBay acquires two firms". <i>CNET News</i> . Retrieved 2008-04-18.
Apr, 1999	Butterfield & Butterfield	\$260m	"eBay buys Butterfield & Butterfield". <i>CNET News</i> . Retrieved 2008-04-18.
Jul, 1998	Up4Sale.com	—	"Business Wire July 16, 1998". <i>Business Wire</i> . Retrieved 2007-07-08.

List of Acquisitions by Facebook

Date	Company	Value (USD)	References
Dec, 2013	SportStream	—	"Sporty Facebook acquires a San Francisco-based startup". Woolor. Retrieved 2013-12-21.
Oct, 2013	Onavo	—	"Facebook Buys Mobile Data Analytics Company Onavo, Reportedly For Up To \$200M... And (Finally?) Gets Its Office In Israel". TechCrunch. Retrieved 2013-12-21.
Aug, 2013	Jibbigo	—	"Facebook Acquires "Mobile Technologies", Developer Of Speech Translation App Jibbigo". TechCrunch. Retrieved 2013-12-21.
Jul, 2013	Monoidics	—	"Facebook to Aquire Monoidics' Assets!". Monoidics. Retrieved 2013-12-21.
Apr, 2013	Parse	—	"Welcoming Parse to Facebook". Facebook. Retrieved 2013-12-21.
Apr, 2013	Spaceport	—	"Facebook Acquires Team From HTML5 Game Platform Spaceport.io, Which Will Keep Running". TechCrunch. Retrieved 2013-12-21.
Mar, 2013	Hot Studio	—	"Welcoming the Talented Team Behind Hot Studio". Facebook. Retrieved 2013-12-21.
Feb, 2013	Atlas	<\$100m	"Facebook Confirms It Will Acquire Atlas Advertiser Suite From Microsoft To Close The Ad Spend Loop". Techcrunch. Retrieved 2013-12-21.
Aug, 2012	Threadsy	—	"Facebook Acquires Threadsy, Maker of Social Marketing Tool Swaylo". Techcrunch. Retrieved 2013-12-21.
Jul, 2012	Acrylic Software	—	"Facebook acquires Mac, iOS developer Acrylic Software". CNET. Retrieved 2013-12-21.
Jul, 2012	Spool	—	"Facebook acquires mobile-bookmarking service Spool". CNET. Retrieved 2013-12-21.
Jun, 2012	Face.com	\$100m	"Facebook acquires Face.com - stock up 4.7 percent". San Francisco Gate. Retrieved 2012-06-19.
May, 2012	Karma	—	"Facebook stumbles, buys startup Karma." The Australian. Retrieved 2013-12-21.
May, 2012	Lightbox.com	—	"Facebook Hires Team From Android Photosharing App Dev Lightbox To Quiet Mobile Fears." TechCrunch. Retrieved 2013-12-21.
Apr, 2012	Tagtile	—	"Facebook Acquires Team Behind Customer-Loyalty App Tagtile". Bloomberg News. Retrieved 2012-05-05.
Apr, 2012	Instagram	\$1b	"Facebook Buys Instagram for \$1 Billion, Turns Budding Rival Into Its Standalone Photo App". TechCrunch. Retrieved 2013-12-21.
Dec, 2011	Gowalla	—	"Facebook Has Acquired Gowalla." TechCrunch. Retrieved on 2013-12-21.
Nov, 2011	Strobe	—	"Facebook Acquires Team Behind HTML5 App Platform Strobe; SproutCore Lives On". TechCrunch. Retrieved 2012-05-05.

Date	Company	Value (USD)	References
Oct, 2011	Friend.ly	—	"Facebook acquires Q&A service Friend.ly". ZDNet. Retrieved 2012-05-05.
Aug, 2011	Push Pop Press	—	"Push Pop Press acquired by Facebook". Push Pop Pres. Retrieved 2012-05-05.
Jun, 2011	Sofa	—	"Facebook Buys Sofa, A Software Design Team That Will Help Make Facebook More Beautiful". TechCrunch. Retrieved 2011-06-09.
Jun, 2011	MailRank	—	"Facebook buys e-mail prioritiser MailRank". FirstPost. Retrieved 2011-11-16.
Apr, 2011	DayTum	—	"Facebook Acq-hires Data Organization Startup Daytum". TechCrunch. Retrieved 2013-12-21.
Mar, 2011	RecRec	—	"Facebook Picks Up Much of Dogpatch Labs Startup Recrec's Team". Inside Facebook. Retrieved 2013-12-21.
Mar, 2011	Snaptu	\$60–70m	"Confirmed: Facebook Acquires Snaptu (For An Estimated \$60 – \$70 Million)". TechCrunch. Retrieved 2011-03-20.
Mar, 2011	Beluga	—	"Facebook Acquires Group Messaging Service Beluga In A Talent AND Technology Deal". TechCrunch. Retrieved 2011-03-01.
Jan, 2011	Rel8tion	—	"Facebook Acquires Mobile Advertising Company Out of Stealth Mode". AllThingsD. Retrieved 2011-01-25.
Nov, 2010	FB.com domain name	\$8.5m	"FB.com acquired by Facebook". NameMon News. Retrieved 2013-12-21.
Oct, 2010	Drop.io	~\$10m	"Facebook Acquires Drop.io, Nabs Sam Lessin". TechCrunch. Retrieved 2010-10-30.
Aug, 2010	Hot Potato	~\$10m	"Facebook acquires Hot Potato". Mashable. Retrieved 2010-10-30.
Aug, 2010	Chai Labs	\$10m	"Facebook Acquires Chai Labs, Gains 'Godfather of Google Adsense'". PCMag. Retrieved 2010-10-30.
Jul, 2010	Nextstop	\$2.5m	"Facebook acquires social travel-recommendation site Nextstop". TechCrunch. Retrieved 2010-10-30.
May, 2010	ShareGrove	—	"Facebook Acquires ShareGrove". Mashable. Retrieved 2010-10-30.
May, 2010	Friendster (patents)	\$40m	"Facebook buys friendster patents for 40m". GigaOm. Retrieved 2010-10-30.
Mar, 2010	Divvyshot	—	"Facebook Buys Up Divvyshot To Make Facebook Photos Even Better". TechCrunch. Retrieved 2010-10-30.
Feb, 2010	Octazen	—	"Octazen: What The Heck Did Facebook Just Buy Exactly, And Why?". TechCrunch. Retrieved 2010-10-30.
Aug, 2009	FriendFeed	\$47.5m	"Facebook Acquires FriendFeed". TechCrunch. Retrieved 2010-10-30.
Jun, 2008	ConnectU	\$31m	"Judge Blocks Rival's Effort to Learn Value of Facebook's Stock". New York Law Journal. Retrieved 2010-10-30.

Date	Company	Value (USD)	References
Jul, 2007	Parakey	—	"Facebook buys Parakey". Gigaom. 2007-07-19. Retrieved 2010-10-30.
Aug, 2005	facebook.com domain name	\$0.2m	"Facebook wins Manx battle for face-book.com". The Register (London). Retrieved 2008-06-13.

List of Acquisitions by Google

Date	Company	Value (USD)	References
Dec, 2013	Boston Dynamics	—	"Google Adds to Its Menagerie of Robots". <i>The New York Times</i> . Retrieved 2013-12-14.
Dec, 2013	Autofuss	—	"Google Puts Money on Robots, Using the Man Behind Android". <i>The New York Times</i> . Retrieved 2013-12-13.
Dec, 2013	Bot & Dolly	—	Ibid.
Dec, 2013	Holomni	—	Ibid.
Dec, 2013	Meka Robotics	—	Ibid.
Dec, 2013	Redwood Robotics	—	Ibid.
Dec, 2013	Industrial Perception	—	Ibid.
Dec, 2013	Schaft.inc	—	Ibid.
Oct, 2013	FlexyCore	\$24m	"Google buys the company behind DroidBooster to speed up Android, cross fingers for KitKat". <i>PhoneArena</i> . Retrieved 2013-10-22.
Oct, 2013	Flutter	\$40m	"Google Acquires YC-Backed Flutter, A Gesture Recognition Technology Startup, For Around \$40M". <i>TechCrunch</i> . Retrieved 2013-10-2.
Sep, 2013	Bump	—	"Google Buys Bump App for Easy Sharing". <i>PC Mag</i> . Retrieved 2013-09-16.
Jun, 2013	Waze	\$966m	"Yahoo And Google Are Both Spending Big Money On Acquisition Sprees And What That Says About Their Futures". <i>TechCrunch</i> . Retrieved 2013-07-29.
May, 2013	Makani Power	—	"Google X Acquires Makani Power And Its Airborne Wind Turbines". <i>TechCrunch</i> . Retrieved 2013-05-23.
Apr, 2013	Wavii	\$30m	"Google Buys Wavii For North Of \$30 Million". <i>TechCrunch</i> . Retrieved 2013-04-25.
Apr, 2013	Behavio	—	"Google acquires Android mobile-data firm Behavio". <i>CNet</i> . Retrieved 2013-04-16.
Mar, 2013	Talaria Technologies	—	"Google Acquires Web Application Server Talaria To Enhance Its Cloud Platform". <i>TechCrunch</i> . Retrieved 2013-05-06.
Mar, 2013	DNNresearch Inc.	—	"U of T neural networks start-up acquired by Google". <i>University of Toronto</i> . Retrieved 2013-03-13.
Feb, 2013	Channel Intelligence	\$125m	"Google Acquires Channel Intelligence For \$125M To Boost Product Referrals And E-Commerce With Users". <i>TechCrunch</i> . Retrieved 2013-12-21.

Date	Company	Value (USD)	References
Nov, 2012	BufferBox	\$17m	"Google snaps up Waterloo startup BufferBox". <i>The National Post</i> . Retrieved 2012-11-30.
Nov, 2012	Incentive Targeting Inc.	—	"Google nabs coupon-marketing startup Incentive Targeting". <i>ZDNet</i> . Retrieved 2012-11-28.
Oct, 2012	Viewdle	\$45m	"Confirmed: Google's Motorola Mobility Acquires Image And Gesture Recognition Company Viewdle". <i>TechCrunch</i> . Retrieved 2013-05-06.
Sep, 2012	Nik Software, Inc.	—	"Google Acquires Nik Software". <i>Nik Software</i> . Archived from the original on 2013-02-07. Retrieved 2012-09-17.
Sep, 2012	VirusTotal.com	—	"An update from VirusTotal". <i>VirusTotal.com</i> . Retrieved 2012-09-07.
Aug, 2012	Wildfire Interactive	\$450m	"Google Slaps \$100M Golden Handcuffs On Wildfire To Retain Employees After \$350M Acquisition". <i>TechCrunch</i> . Retrieved 2012-09-09.
Jul, 2012	Sparrow	\$25m	"Google acquires Sparrow, integrates it into the Gmail team". <i>Ars Technica</i> . Retrieved 2012-07-20.
Jun, 2012	Quickoffice	—	"Google + Quickoffice = get more done anytime, anywhere". <i>Google</i> . Retrieved 2013-05-06.
Jun, 2012	Meebo	\$100m	"Google is acquiring messaging and advertising service Meebo for its Google+ team". <i>The Next Web</i> . Retrieved 2013-05-06.
Apr, 2012	TxVia	—	"Google Buys TxVia, Banks On Better Payment Technology (And 100M Customers) For Google Wallet". <i>TechCrunch</i> . Retrieved 2013-05-06.
Mar, 2012	Milk, Inc	—	"Google nabs Digg founder to boost Google+". <i>CNN</i> . Retrieved 2013-05-06.
Jul, 1905	WIMM Labs	—	"Google Confirms It Has Acquired Android Smartwatch Maker WIMM Labs". <i>TechCrunch</i> . <i>AOL Inc</i> . Retrieved 2013-09-08.
Dec, 2011	Clever Sense	—	"Google Acquires Clever Sense, Creator Of Local Recommendations App Alfred". <i>TechCrunch</i> . Retrieved 2013-05-06.
Dec, 2011	RightsFlow	—	"YouTube Buys Company That Processes Music Royalties". <i>The New York Times</i> . Retrieved 2013-05-06.
Nov, 2011	Katango	—	"Google Acquires Katango, The Automatic Friend Sorter". <i>TechCrunch</i> . Retrieved 2013-05-06.
Nov, 2011	Apture	—	"Google Buys Contextual Rich News Browsing Startup Apture To Beef Up Chrome". <i>TechCrunch</i> . Retrieved 2013-05-06.
Oct, 2011	SocialGrapple	—	"Google Acquires Twitter Analytics Startup SocialGrapple". <i>Search Engine Watch</i> . Retrieved 2013-05-06.
Sep, 2011	DailyDeal	\$114m	"Google buys German deals site DailyDeal to take Offers global". <i>Reuters</i> . September 19, 2011. Retrieved 2013-05-06.
Sep, 2011	Zagat	\$151m	"Google Discloses \$151 Million Price Tag for Zagat Service". <i>Bloomberg Television</i> . Retrieved 2013-05-06.
Sep, 2011	Zave Networks	—	"Google Buys Frommer's to Expand Local Search Content". <i>eWeek</i> . Retrieved 2012-09-09.

Date	Company	Value (USD)	References
Aug, 2011	Motorola Mobility	\$12.5b	"Gadget wars heat up as new Apple iPhone looms". <i>Financial Post</i> . Retrieved 2012-09-09.
Aug, 2011	Dealmap	—	"Google Scoops Up Daily Deal Aggregator 'The Dealmap'". <i>TechCrunch</i> . Retrieved 2013-05-06.
Jul, 2011	PittPatt	—	"Google Acquires Facial Recognition Software Company PittPatt". <i>TechCrunch</i> . Retrieved 2013-05-06.
Jul, 2011	Fridge	—	"Google+ Makes Its First Acquisition And Buys Social Group Startup Fridge". <i>Business Insider</i> . Retrieved 2013-05-06.
Jul, 2011	Punchd	—	"Google To Buy Mobile Loyalty Card Startup Punchd". <i>Techcrunch</i> . Retrieved 2013-05-06.
Jun, 2011	SageTV	—	"Google buys up SageTV to bolster Google TV with useful features". <i>Ars Technica</i> . Retrieved 2013-12-21.
Jun, 2011	Admeld	\$400m	"Helping publishers get the most from display advertising with Admeld". <i>DoubleClick Publisher Blog</i> . Retrieved 2013-05-06.
Jun, 2011	PostRank	—	"Google Acquires PostRank, An Analytics Service For The Social Web". <i>Techcrunch</i> . Retrieved 2013-05-06.
May, 2011	Sparkbuy	—	"Google Acquires 'Kayak For Consumer Electronics' Sparkbuy". <i>Techcrunch</i> . Retrieved 2013-05-06.
Apr, 2011	TalkBin	—	"Google Acquires TalkBin, A Feedback Platform For Businesses That's Only Five Months Old". <i>Techcrunch</i> . Retrieved 2013-05-06.
Apr, 2011	PushLife	\$25m	"Google Buys Mobile Entertainment Platform Pushlife". <i>Techcrunch</i> . Retrieved 2013-05-06.
Mar, 2011	Green Parrot Pictures	—	"YouTube Continues To Amp Up Its Content Quality, Buys Green Parrot Pictures". <i>Techcrunch</i> . Retrieved 2013-05-06.
Mar, 2011	BeatThatQuote.com	£37.7m	"Beat that! Google acquires the UK's BeatThatQuote.com for £37.7m". <i>Techcrunch Europe</i> . Retrieved 2013-05-06.
Mar, 2011	Next New Networks	—	"It's Official: YouTube Buys Next New Networks". <i>GigaOm</i> . Retrieved 2013-05-06.
Mar, 2011	Zynamics	—	"zynamics acquired by Google !". <i>Zynamics</i> . Retrieved 2013-05-06.
Jan, 2011	fflick	\$10m	"Google To Acquire fflick For \$10 Million". <i>TechCrunch</i> . Retrieved 2013-05-06.
Jan, 2011	SayNow	—	"Google acquires SayNow". <i>SayNow</i> . Retrieved 2013-12-21.
Jan, 2011	eBook Technologies	—	"Google acquires eBook Technologies". <i>InfoWorld</i> . Retrieved 2013-05-06.
Dec, 2010	Phonetic Arts	—	"Can we talk? Better speech technology with Phonetic Arts". <i>Official Google Blog</i> . Retrieved 2010-12-04.

Date	Company	Value (USD)	References
Dec, 2010	Widvine Technologies	—	"On demand is in demand: we've agreed to acquire Widvine". <i>Official Google Blog</i> . Retrieved 2010-12-04
Oct, 2010	BlindType	—	"Google Acquires Impressive Touchscreen Keyboard Startup BlindType". <i>TechCrunch</i> . Retrieved 2010-12-04.
Sep, 2010	Plannr	—	"Google Buys Schedule Management Startup Plannr". <i>TechCrunch</i> . Retrieved 2013-05-06.
Sep, 2010	Quiksee	\$10m	"Google purchases Israeli startup Quiksee". <i>Quiksee</i> . Retrieved 2010-09-13.
Aug, 2010	Angstro	—	"Google buys Angstro". Angstro. Retrieved 2010-08-30.
Aug, 2010	SocialDeck, Inc.	—	"Google buys Canadian gaming company SocialDeck". <i>The Globe and Mail (Toronto)</i> . Retrieved 2010-08-30.
Aug, 2010	Like.com	\$100m	"Google to Acquire Like.com". <i>TechCrunch</i> . Retrieved 2010-08-15.
Aug, 2010	Jambool	\$70m	"Google to Acquire jambool". <i>TechCrunch</i> . Retrieved 2010-08-10.
Aug, 2010	Slide.com	\$228m	"SAD MAX: Google Just Bought Slide For A Measly \$228 Million". <i>Business Insider</i> . Retrieved 2011-08-17.
Aug, 2010	Instantiations	—	"Google buys Java tools from Instantiations". <i>SD Times</i> . Retrieved 2010-08-05.
Aug, 2010	Zetawire	—	"Google Confirms Zetawire Buy for NFC vs. Apple, RIM". <i>eWeek</i> . Retrieved 2013-05-06.
Jul, 2010	Metaweb	—	"Metaweb joins Google – The Freebase Blog". <i>Semantic Web</i> . Retrieved 2013-05-06.
Jul, 2010	ITA Software	\$676m	"Google and ITA Software Sign Acquisition Agreement". <i>Google Investor Relations</i> . Retrieved 2010-07-01.
Jun, 2010	Invite Media	\$81m	"Google's Final Price Tag for Invite Media: \$81 Million". <i>Media Memo – All Things Digital</i> . Retrieved 2013-05-06.
May, 2010	Ruba.com	—	"Serial entrepreneur Mike Cassidy sells Ruba to Google". <i>Venturebeat</i> . Retrieved 2010-09-22.
May, 2010	Simplify Media	—	"Google Buys Simplify Media To Power Music Syncing For New iTunes Competitor". <i>TechCrunch</i> . Retrieved 2010-02-25.
May, 2010	Global IP Solutions	\$68.2m	"Google Buys GIPS to Challenge Skype in VOIP". <i>eWeek</i> . Retrieved 2012-05-20.
Apr, 2010	BumpTop	\$30m	"Google Buys Bump Technologies, Maker of 3-D Desktop Software". <i>Bloomberg, L.P.</i> Retrieved 2010-04-30.
Apr, 2010	LabPixies	—	"Google buys Labpixies". <i>InformationWeek</i> . Retrieved 2010-04-27.

Date	Company	Value (USD)	References
Apr, 2010	Agnilux	—	"Google buys Agnilux, eyeing processors". <i>CNN</i> . Retrieved 2013-07-09.
Apr, 2010	PlinkArt	—	"Google Acquires Its First Ever UK Startup. Visual Search Engine Plink". <i>The Next Web</i> . Retrieved 2010-04-12.
Apr, 2010	Episodic	—	"Episodic Joins Google". <i>Episodic</i> . Retrieved 2010-04-02.
Mar, 2010	DocVerse	\$25m	"Google Acquires Docverse To Further Office Arms Race". <i>TechCrunch</i> . Retrieved 2013-05-06.
Mar, 2010	Picnik	—	"Deals may rise as tech firms overflow with cash". <i>TD Ameritrade</i> . Retrieved 2010-05-13.
Feb, 2010	reMail	—	"Google Continues Shopping Spree; Acquires reMail And Former Gmail Employee". <i>TechCrunch</i> . Retrieved 2010-02-17.
Feb, 2010	Aardvark	\$50m	"Google acquires social search engine Aardvark". <i>CNET</i> . Retrieved 2010-02-12.
Dec, 2009	AppJet	—	Google Acquires AppJet". December 4, 2009. <i>AppJet</i> . Retrieved 2009-12-04.
Nov, 2009	Teracent	—	"Google Has Acquired Teracent". <i>Official Google Blog</i> . Retrieved 2009-11-28.
Nov, 2009	AdMob	\$750m	"Facts about Google's acquisition of AdMob". <i>Official Google Blog</i> . Retrieved 2009-09-16.
Nov, 2009	Gizmo5	\$30m	"Exclusive: Google Has Acquired Gizmo5". <i>TechCrunch</i> . Retrieved 2009-11-09.
Sep, 2009	reCAPTCHA	—	"Teaching computers to read: Google acquires reCAPTCHA". <i>Official Google Blog</i> . Retrieved 2009-09-16.
Aug, 2009	On2	\$133m	"Google Bullied Out Of Another \$26.5 Million In Cash By On2 Shareholders". <i>Business Insider</i> . Retrieved 2011-08-17.
Sep, 2008	TNC	—	"Google buys Korean blogging software company". <i>Reuters</i> . Retrieved 2009-03-24.
Jul, 2008	Omnisio	\$15m	"YouTube and Omnisio Join Forces". <i>YouTube Blog</i> . Retrieved 2008-07-30.
Oct, 2007	Jaiku	—	"Google acquires Jaiku". <i>Jaiku</i> . Retrieved 2008-01-08.
Sep, 2007	Zingku	—	"Google Buys Mobile Social Network Zingku". <i>PC World</i> . Retrieved 2008-01-08.
Jul, 2007	ImageAmerica	—	"We have acquired ImageAmerica, a company that builds high resolution cameras for the collection of aerial imagery". <i>Google LatLong Blog</i> . Retrieved 2007-07-21.
Jul, 2007	Postini	\$625m	"Google buys Postini for \$625m". <i>vnunet</i> . Retrieved 2008-01-08.

Date	Company	Value (USD)	References
Jul, 2007	GrandCentral	\$45m	"We're pleased to announce that we have acquired GrandCentral Communications". <i>Official Google Blog</i> . Retrieved July 2, 2007-07-02.
Jun, 2007	Zenter	—	"We're pleased to announce that we've acquired the assets of Zenter". <i>Official Google Blog</i> . Retrieved 2008-01-08.
Jun, 2007	PeakStream	—	"Google shivs server crowd with PeakStream buy". <i>The Register</i> . Retrieved 2007-06-05.
Jun, 2007	FeedBurner	\$100m	"Google buys Internet news delivery firm FeedBurner". <i>Melbourne: The Age</i> . Retrieved 2008-03-22.
Jun, 2007	Panoramio	—	"Google has announced plans to acquire Spain's Panoramio photo sharing service". <i>Digital Trends</i> . Retrieved 2007-06-01.
May, 2007	GreenBorder	—	"Google acquires GreenBorder Technologies". <i>CNET</i> . Retrieved 2008-01-08.
Apr, 2007	Marratech	\$15m	"Collaborating with Marratech". <i>Official Google Blog</i> . Retrieved 2007-04-19.
Apr, 2007	Tonic Systems	—	"We want to welcome the team from Tonic Systems to Google". <i>Official Google Blog</i> . Retrieved 2007-04-17.
Apr, 2007	DoubleClick	\$3.1b	"The next step in Google advertising". <i>Official Google Blog</i> . Retrieved 2008-01-08.
Mar, 2007	Trendalyzer	—	"Google Buys Data Visualization Software". <i>Forbes</i> . Retrieved 2007-04-02.
Feb, 2007	Adscape	\$23m	"Google buys video game ad firm Adscape". <i>USA Today</i> . Retrieved 2013-05-06.
Dec, 2006	Endoxon	\$28m	"Google buys Endoxon". <i>InfoWorld</i> . Retrieved 2007-04-02.
Oct, 2006	JotSpot	—	"Google Buys JotSpot, Offers Free Wiki Pages". <i>PC World</i> . Retrieved 2006-10-09.
Oct, 2006	YouTube	\$1.65b	"Google To Acquire YouTube for \$1.65 Billion in Stock". <i>Google</i> . Retrieved 2008-03-19.
Aug, 2006	Neven Vision Germany GmbH	—	"A better way to organize photos?". <i>Official Google Blog</i> . Retrieved 2007-04-02.
Jun, 2006	2Web Technologies	—	"Google bites the Big Apple". <i>InfoWorld</i> . Retrieved 2007-04-04.
Apr, 2006	Orion	—	"Google buys Orion algorithm". <i>The Register</i> . Retrieved 2008-03-22.
Mar, 2006	@Last Software	—	"Google acquires @Last Software". <i>CNET</i> . Retrieved 2007-04-04.
Mar, 2006	Upstartle	—	"Google buys Web word-processing technology". <i>CNET</i> . Retrieved 2007-04-04.

Date	Company	Value (USD)	References
Feb, 2006	Measure Map	—	"Here comes Measure Map". <i>Official Google Blog</i> . Retrieved 2007-04-04.
Jan, 2006	dMarc Broadcasting	\$102m	"Google Acquires dMarc Radio for \$102 Million". <i>Information Week</i> . Retrieved 2013-05-06.
Dec, 2005	allPAY GmbH	—	"Google Subsidiaries". U.S. <i>Securities and Exchange Commission</i> . Retrieved 2008-03-19.
Dec, 2005	bruNET GmbH	—	"Google Subsidiaries". U.S. <i>Securities and Exchange Commission</i> . Retrieved 2008-03-19.
Dec, 2005	Phatbits	—	"Ex-Google tells all to Microsoft". <i>CNET</i> . Retrieved 2008-03-18.
Nov, 2005	Skia	—	"Google already has foothold in Triangle". <i>The News & Observer</i> . Retrieved 2007-04-04.
Aug, 2005	Android	\$50m	"Google Buys Android for Its Mobile Arsenal". <i>Business Week</i> . Retrieved 2007-04-04.
Jul, 2005	Akwan Information Technologies	—	"Google Continues International Expansion, Opens Offices in Latin America". <i>Google</i> . Retrieved 2007-04-04.
Jul, 2005	Current Communications Group	\$100m	"Google invests in power-line broadband". <i>ZDNet</i> . Retrieved 2007-04-04.
Jul, 2005	Reqwireless	—	"Google turning Canada into mobile software mecca". <i>The Register</i> . Retrieved 2007-04-04.
May, 2005	Dodgeball	—	"Google buys Dodgeball". <i>Engadget</i> . Retrieved 2007-04-04.
Mar, 2005	Urchin Software Corporation	—	"Google Agrees To Acquire Urchin". <i>Google</i> . Retrieved 2007-04-04.
Oct, 2004	Keyhole, Inc	—	"Google Acquires Keyhole Corp". <i>Google</i> . Retrieved 2007-04-04.
Oct, 2004	Where2	—	"Google mapper advises: take browsers to the limit". <i>CNET</i> . Retrieved 2008-01-08.
Sep, 2004	ZipDash	—	"Google acquires traffic info start-up Zipdash". <i>SiliconBeat</i> . Retrieved 2008-01-08.
Jul, 2004	Picasa	—	"Google Acquires Picasa". <i>Clickz</i> . Retrieved 2008-01-08.
May, 2004	Ignite Logic	—	"Google Quietly Acquires Ignite Logic". <i>WebProNews</i> . Retrieved 2007-04-04.
Oct, 2003	Sprinks	—	"Google Acquires Sprinks". <i>SearchNewz</i> . Retrieved 2007-07-03.
Oct, 2003	Genius Labs	—	"List of Companies Acquired by Google". <i>SEO Consultants</i> . Retrieved 2007-07-03.

Date	Company	Value (USD)	References
Sep, 2003	Kaltix	—	"Google buys search engine – PageRank RIP?". <i>The Register</i> . Retrieved 2008-01-08.
Apr, 2003	Neotonic Software	—	"Google acquires Neotonic Software". <i>Search Engine Journal</i> . Retrieved 2007-04-04.
Apr, 2003	Applied Semantics	\$102m	"Google Buys Applied Semantics". <i>Search Engine Watch</i> . Retrieved 2008-01-08.
Feb, 2003	Pyra Labs	—	"Puzzling Out Google's Blogger Acquisition". <i>Search Engine Watch</i> . Retrieved 2008-01-08.
Sep, 2001	Outride	—	"Google Acquires Technology Assets of Outride Inc". <i>Google</i> . Retrieved 2007-04-04.
Feb, 2001	Deja	—	"Google Acquires Usenet Discussion Service and Significant Assets from Deja.com". <i>Google</i> . Retrieved 2007-04-04.